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Maintenance schedule

The scheduled maintenance items required to be serviced at regular intervals are shown in the “Warranty and Maintenance Booklet”.

For details of your maintenance schedule, read the separate “Warranty and Maintenance Booklet”.

NOTE

For models with a multi function display, you can set a reminder to be displayed when a scheduled maintenance item is almost due. For details, refer to “Maintenance settings” ☞3-78.

Maintenance precautions

When maintenance and service are required, it is recommended that all work be done by an authorized SUBARU dealer.

If you perform maintenance and service by yourself, you should familiarize yourself with the information provided in this section on general maintenance and service for your SUBARU.

Incorrect or incomplete service could cause improper or unsafe vehicle operation. Any problems caused by improper maintenance and service performed by you are not eligible for warranty coverage.

⚠ WARNING

- **Testing of an All-Wheel Drive model must NEVER be performed on a single two-wheel dynamometer or similar apparatus. Attempting to do so will result in transmission damage and in uncontrolled vehicle movement and may cause an accident or injuries to persons nearby.**
- **Always select a safe area when performing maintenance on your vehicle.**
- **Always be very careful to avoid injury when working on the vehicle. Remember that some of the materials in the vehicle may be hazardous if improperly used or handled, for example, battery acid.**
- **Your vehicle should only be serviced by persons fully competent to do so. Serious personal injury may result to persons not experienced in servicing vehicles.**
- **Always use the proper tools and make certain that they are well maintained.**
- **Never get under the vehicle supported only by a jack. Always use safety stands to support the vehicle.**
- **Never keep the engine running in a poorly ventilated area, such as a garage or other closed areas.**
- **Do not smoke or allow open flames around the fuel or battery. This will cause a fire.**
- **Because the fuel system is under pressure, replacement of the fuel filter should be performed only by your SUBARU dealer.**
- **Wear adequate eye protection to**

– CONTINUED –

guard against getting oil or fluids in your eyes. If something does get in your eyes, thoroughly wash them out with clean water.

- Do not tamper with the wiring of the SRS airbag system or seatbelt pretensioner system, or attempt to take its connectors apart, as that may activate the system or it can render it inoperative. NEVER use a circuit tester for this wiring. If your SRS airbag or seatbelt pretensioner needs service, consult your nearest SUBARU dealer.

NOTE

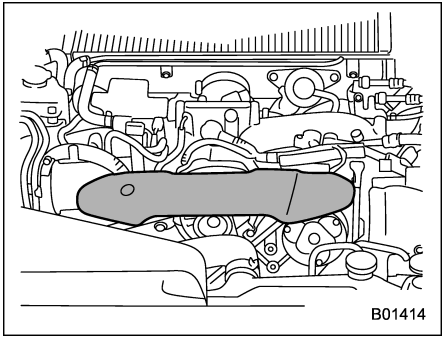
SUBARU does not endorse the use of non-SUBARU approved flushing systems and strongly advises against performing these services on a SUBARU vehicle. Non-SUBARU approved flushing systems use chemicals and/or solvents which have not been tested or approved by SUBARU. SUBARU warranties do not cover any part of the vehicle which is damaged by adding or applying chemicals and/or solvents other than those approved or recommended by SUBARU.

■ Before checking or servicing in the engine compartment

⚠ WARNING

- Always stop the engine and set the parking brake firmly to prevent the vehicle from moving.
- Always let the engine cool down. Engine parts become very hot when the engine is running and remain hot for some time after the engine has stopped.
- Do not spill engine oil, engine coolant, brake fluid or any other fluid on hot engine components. This may cause a fire.
- Always remove the key from the ignition switch or turn the push-button ignition switch to the "OFF" position. When the ignition switch is in the "ON" position, the cooling fan may operate suddenly even when the engine is stopped.
- Before performing any servicing on a vehicle equipped with a remote engine start system (a dealer option) temporarily place that system in the service mode to prevent it from unexpectedly starting the engine.

■ When checking or servicing in the engine compartment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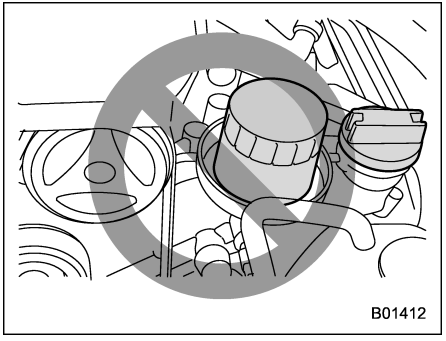
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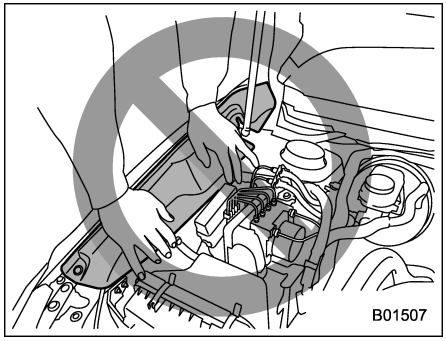


⚠ CAUTION

- **Do not contact the drive belt cover while checking the components in the engine compartment. Doing so may cause your hand to slip off the cover and result in an unexpected injury.**
- **Do not touch the oil filter until the engine has cooled down completely. Doing so may result in a burn or other injury. Note that the oil filter becomes very hot when the engine is running and remains hot for some time after the engine has stopped.**
- **Do not apply force on the fender insulator by placing your hands on it, etc. Deformation of the insulator and its mount may occur.**

■ When checking or servicing in the engine compartment while the engine is running

⚠ WARNING

A running engine can be dangerous. Keep your fingers, hands, clothing, hair and tools away from the cooling fan, drive belt and any other moving engine parts. Removing rings, watches and ties is advisable.

Maintenance tips

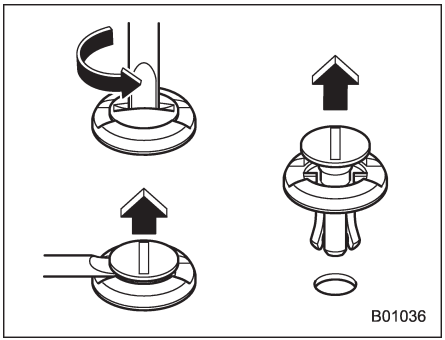
Some clips and fender linings must be removed before replacing the air cleaner elements or specific bulbs.

■ Removing and reinstalling clips

▼ Removing clips

There are several types of clips used for your vehicle.

▽ **Type A clips**

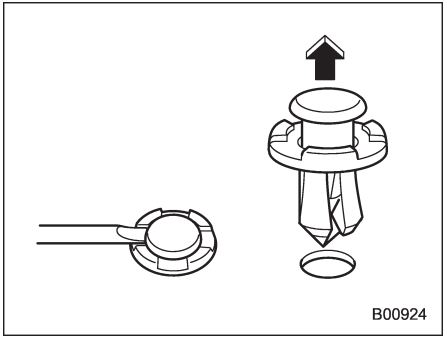


1. Turn the clips counterclockwise using a flat-head screwdriver until the center portion of the clip is raised.
2. Remove the clips with a flat-head screwdriver using leverage.

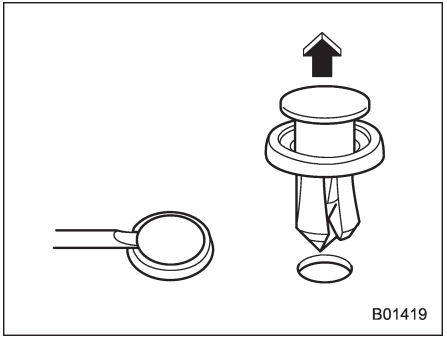
– CONTINUED –

3. Remove the entire clip by pulling it up.

▽ **Type B clips**

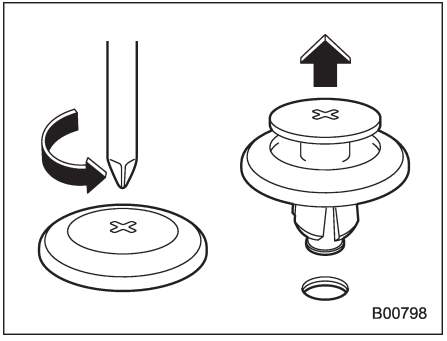


▽ **Type C clips**



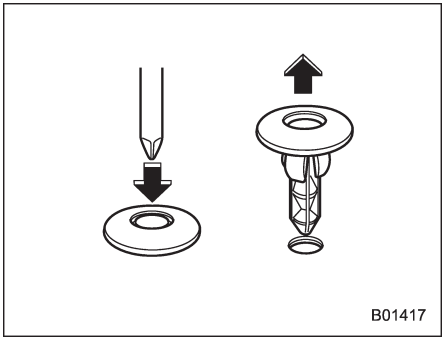
1. Pull out the center portion of the clip using a flat-head screwdriver as shown in the illustration.
2. Pull the protruded center portion to remove the entire body of the clip.

▽ **Type D clips**



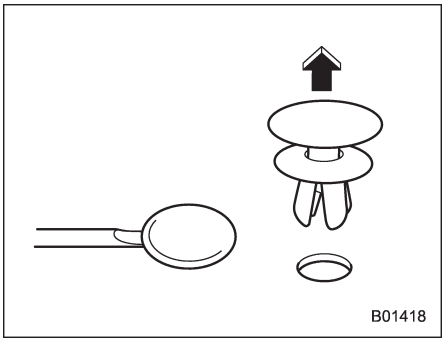
1. Turn the clip counterclockwise using a Phillips screwdriver until the center portion of the clip is raised.
2. Remove the entire clip by pulling it up.

▽ **Type E clips**



1. Push the center portion of the clip using a Phillips screwdriver until the clip is raised.
2. Remove the entire clip by pulling it up.

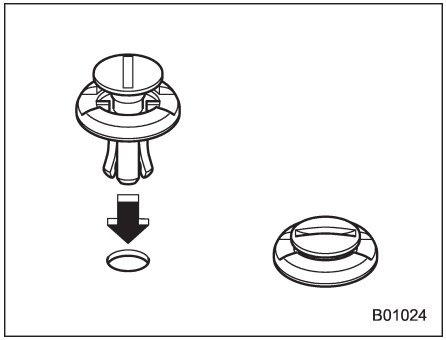
▽ **Type F clips**



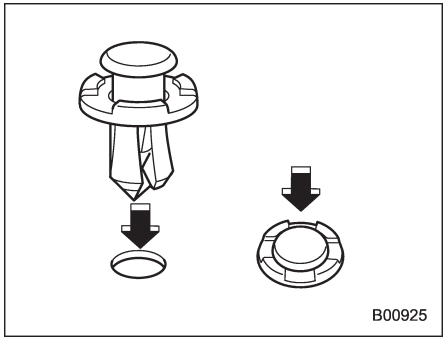
1. Pull out the head of the clip using a flat-head screwdriver as shown in the illustration.
2. Remove the entire clip by pulling it up.

▼ **Reinstalling clips**

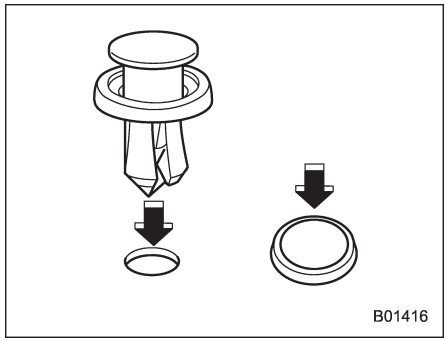
▽ **Type A clips**



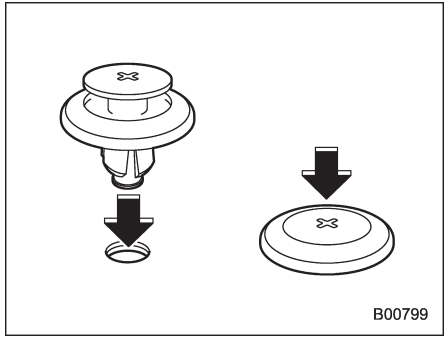
▽ **Type B clips**



▽ **Type C clips**

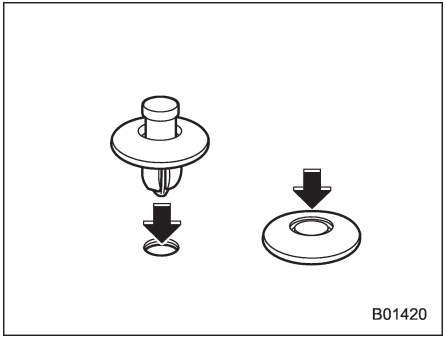


▽ **Type D clips**



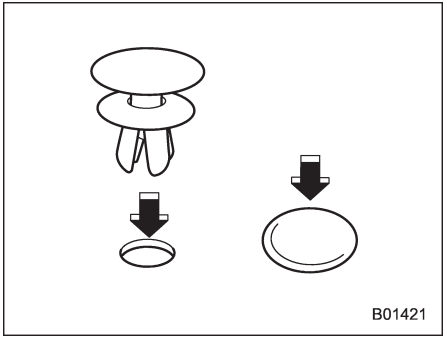
– CONTINUED –

▽ **Type E clips**



Insert the clip without the center portion first and then push the center portion of the clip into the hole.

▽ **Type F clips**

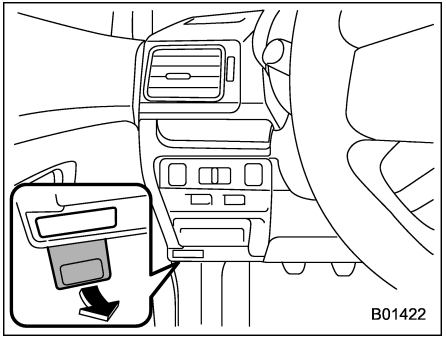


Insert the clip without the head first and then push the head of the clip into the hole.

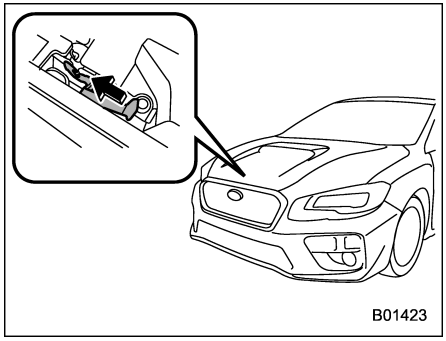
Engine hood

To open the hood:

1. If the wiper blades are lifted off the windshield, return them to their original position.



2. Pull the hood release knob under the instrument panel.



3. Release the secondary hood release by moving the lever between the front grille and the hood toward the left.
4. Lift up the hood.

To close the hood:

1. Lower the hood to a height of approximately 11.8 in (30 cm) above its closed position and then let it drop.
2. After closing the hood, be sure the hood is securely locked.

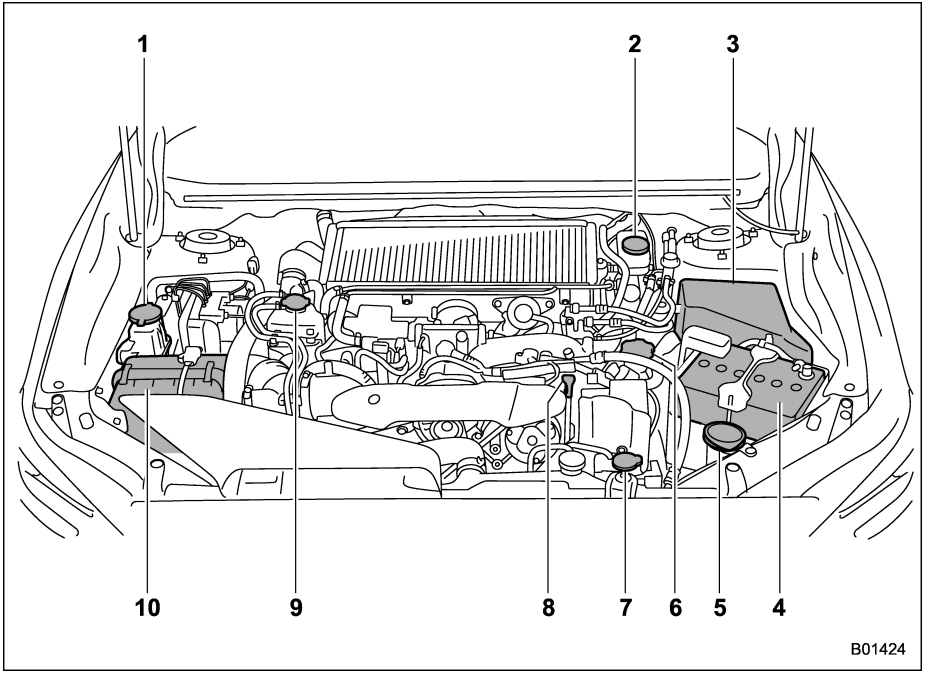
If this does not close the hood, release it from a slightly higher position. Do not push the hood forcibly to close it. It could deform the metal.

⚠ WARNING

Always check that the hood is properly locked before you start driving. If it is not, it might fly open while the vehicle is moving and block your view, which may cause an accident and serious bodily injury.

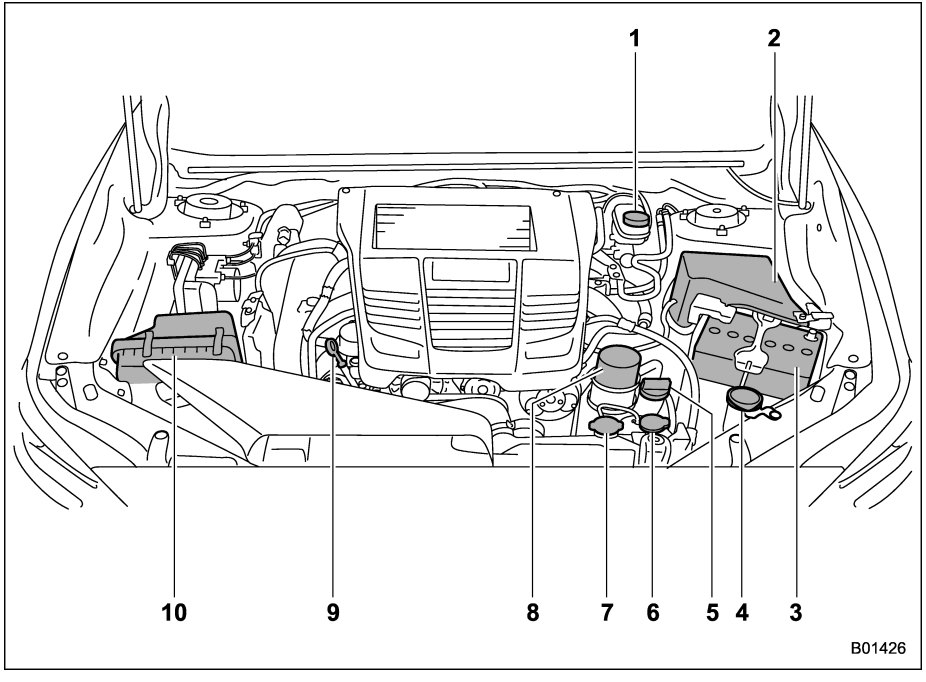
Engine compartment overview

■ STI



1) Power steering fluid reservoir (page 11-23)
2) Brake fluid reservoir/Clutch fluid reservoir (page 11-24)
3) Fuse box (page 11-41)
4) Battery (page 11-40)
5) Windshield washer tank (page 11-37)
6) Engine oil filler cap (page 11-12)
7) Engine coolant reservoir (page 11-17)
8) Engine oil level gauge (page 11-12)
9) Coolant filler tank cap (page 11-17)
10) Air cleaner case (page 11-18)

■ Except STI



1) Brake fluid reservoir/Clutch fluid reservoir (MT models) (page 11-24)
2) Fuse box (page 11-41)
3) Battery (page 11-40)
4) Windshield washer tank (page 11-37)
5) Engine oil filler cap (page 11-12)
6) Engine coolant reservoir (page 11-17)
7) Radiator cap (page 11-17)
8) Engine oil filter (page 11-14)
9) Engine oil level gauge (page 11-12)
10) Air cleaner case (page 11-18)

Engine oil

⚠ CAUTION

- **If the level gauge is not pulled out easily, twist the level gauge right and left, then pull it out. Otherwise, you may be injured accidentally straining yourself.**
- **Use only engine oil with the recommended grade and viscosity.**
- **Be careful not to spill engine oil when adding it. If oil touches the exhaust pipe, it may cause a bad smell, smoke, and/or a fire. If engine oil gets on the exhaust pipe, be sure to wipe it off.**

■ Engine oil consumption

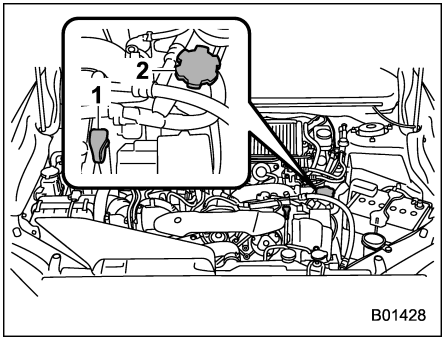
Some engine oil will be consumed while driving. Under the following conditions, oil consumption can be increased and thus require refilling between maintenance intervals:

- When the engine is new and within the break-in period
- When the engine oil is of lower quality
- When the incorrect oil viscosity is used
- When engine braking is employed
- When the engine is operated at high engine speeds
- When the engine is operated under heavy loads
- When the engine idles for long periods of time
- When the vehicle is operated in stop and go and/or heavy traffic situations
- When the vehicle is used under severe thermal conditions
- When the vehicle accelerates and decelerates frequently

Under these or similar conditions, you should check your oil at least every 2nd fuel fill-up and change your engine oil more frequently. If your oil consumption rate is greater than 1 quart every 1,200 miles or 1 liter every 2,000 kilometers, contact your SUBARU dealer who may perform a test under controlled conditions.

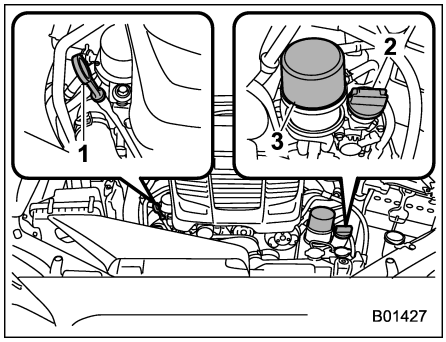
■ Checking the oil level

1. Park the vehicle on a level surface and stop the engine. If you check the oil level just after stopping the engine, wait a few minutes for the oil to drain back into the oil pan before checking the level.



STI

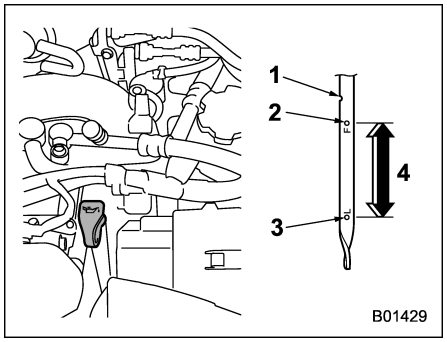
1) Oil level gauge
2) Oil filler cap



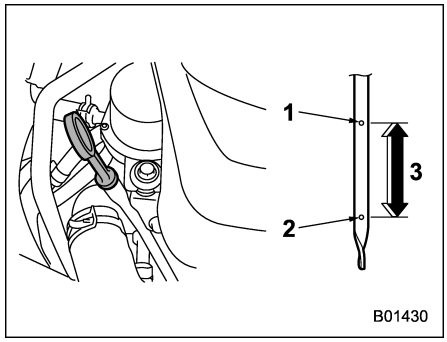
Except STI
1) Oil level gauge
2) Oil filler cap
3) Oil filter

2. Pull out the level gauge, wipe it clean, and insert it again.

3. Be sure the level gauge is correctly inserted until it stops.



STI
1) Notch
2) Full level
3) Low level
4) Approximately 1.1 US qt (1.0 liter, 0.9 Imp qt) from low level to full level



Except STI
1) Full level
2) Low level
3) Approximately 1.1 US qt (1.0 liter, 0.9 Imp qt) from low level to full level

4. Pull out the oil level gauge again.

5. **STI:**

Check the oil level on the gauge. If the oil level is below the low level mark, add oil so that the full level is reached.

Except STI:

Check the oil levels on both sides of the level gauge. The engine oil level must be judged by the lowest of the two levels. If the oil level is below the low level mark, add oil so that the full level is reached.

– CONTINUED –

⚠ CAUTION

- **For models except STI, be careful not to touch the engine oil filter when removing the oil filler cap. Doing so may result in a burn, a pinched finger, or may cause some other injury.**
- **Use only engine oil with the recommended grade and viscosity.**
- **Be careful not to spill engine oil when adding it. If oil touches the exhaust pipe, it may cause a bad smell, smoke, and/or a fire. If engine oil gets on the exhaust pipe, be sure to wipe it off.**
- **If the level gauge is not pulled out easily, twist the level gauge right and left, then pull it out. Otherwise, you may be injured accidentally straining yourself.**

To add engine oil, remove the engine oil filler cap and slowly pour engine oil through the filler neck. After pouring oil into the engine, you must use the level gauge to confirm that the oil level is correct.

For models STI, just after driving or while the engine is warm, the engine oil level reading may be in a range between the upper level and the notch mark. This is caused by thermal expansion of the engine oil.

NOTE

To prevent overfilling the engine oil, do not add any additional oil above the upper level when the engine is cold.

■ Changing the oil and oil filter

⚠ CAUTION

If you change your own oil, be sure to drain all the oil from the filter before disposal. Do not dispose of used engine oil by placing it in the trash, or by pouring it onto the ground, into sewers, or into any body of water. Check with your local government office for the proper disposal options available to you.

Change the oil and oil filter according to the maintenance schedule in the “Warranty and Maintenance Booklet”.

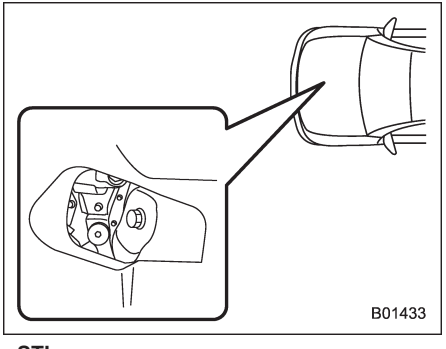
The engine oil and oil filter must be changed more frequently than listed in the maintenance schedule when driving on dusty roads, when short trips are frequently made, or when driving in extremely cold weather.

▼ Changing the oil filter

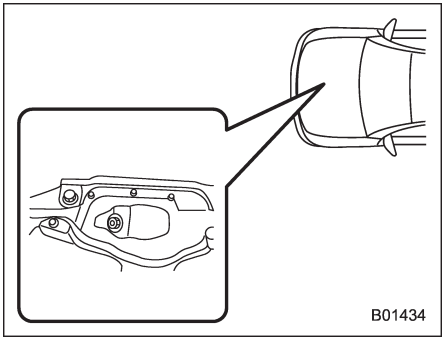
It may be difficult to change the oil filter. Have the oil filter changed by your SUBARU dealer if necessary.

▼ Changing the oil

1. Warm up the engine by letting the engine idle for approximately 10 minutes to ease draining the engine oil.
2. Park the vehicle on a level surface and stop the engine.
3. Remove the oil filler cap.



STI



Except STI

4. Drain out the engine oil by removing the drain plug while the engine is still warm. The used oil should be drained into an appropriate container and disposed of properly.

⚠ WARNING

Be careful not to burn yourself with hot engine oil.

5. Wipe the seating surface of the drain plug with a clean cloth and tighten it securely with a new sealing washer after the oil has completely drained out.

⚠ CAUTION

Thoroughly wipe off any engine oil that has spilled over the exhaust pipe and/or under-cover. If spilled oil is not promptly wiped up, the oil could cause a fire.

6. Pour engine oil through the filler neck. For the oil capacity (guideline), refer to "Engine oil" ☞12-4.

The oil quantity indicated above is only guideline.

The necessary quantity of oil depends on the quantity of oil that has been drained. The quantity of drained oil differs slightly depending on the temperature of the oil and the time the oil is left flowing out. After refilling the engine with oil, therefore, you must use the level gauge to confirm that the level is correct.

7. Start the engine and make sure that no oil leaks appear around the drain plug.

8. Run the engine until it reaches the normal operating temperature. Then stop the engine and wait a few minutes to allow the oil drain back. Check the oil level again and if necessary, add more engine oil.

⚠ CAUTION

Be careful not to spill engine oil when adding it. If oil touches the exhaust pipe, it may cause a bad smell, smoke, and/or a fire.

■ Recommended grade and viscosity

⚠ CAUTION

Use only engine oil with the recommended grade and viscosity.

Refer to "Engine oil" ☞12-4.

NOTE

Engine oil viscosity (thickness) affects fuel economy. Oils of lower viscosity provide better fuel economy. However, in hot weather, oil of higher viscosity is required to properly lubricate the engine.

■ Synthetic oil

You must follow the oil and filter changing intervals shown in the Warranty and Maintenance booklet.

NOTE

Synthetic oil of the grade and viscosity noted in chapter 12 is the recommended engine oil for optimum engine performance. Conventional oil may be

– CONTINUED –

used if synthetic oil is unavailable.

Cooling system

⚠ WARNING

- **Never attempt to remove the radiator cap until the engine has been shut off and has cooled down completely. Since the coolant is under pressure, you may suffer serious burns from a spray of boiling hot coolant when the cap is removed.**
- **Be careful of the rotating cooling fan when the engine hood is open. When the engine temperature is high, the cooling fan in the engine compartment may operate when the ignition switch is turned to the "ON" position, even if the engine is stopped. Touching the cooling fan while it is rotating may result in injury.**

⚠ CAUTION

- **Vehicles are filled at the factory with SUBARU Super Coolant that does not require the first change for 11 years/137,500 miles (11 years/220,000 km). This coolant should not be mixed with any other brand or type of coolant during this period. Mixing with a different coolant will reduce the life of the coolant. Should it be necessary to top up the coolant for any reason, use only SUBARU Super Coolant.**

  If the SUBARU Super Coolant is diluted with another brand or type, the maintenance interval is shortened to that of the mixing coolant.
- **Do not splash the engine coolant over painted parts. The alcohol contained in the engine coolant may damage the paint surface.**

■ Cooling fan, hose and connections

Your vehicle employs an electric cooling fan which is thermostatically controlled to operate when the engine coolant reaches a specific temperature.

If the radiator cooling fan does not operate even when the engine coolant temperature gauge exceeds the normal operating range, the cooling fan circuit may be defective. Refer to "Temperature gauge" ☞3-11.

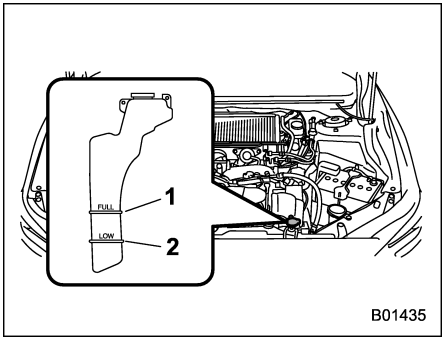
Check the fuse and replace it if necessary. Refer to “Fuses” ☞11-41 and “Fuses and circuits” ☞12-9.

If the fuse is not blown, have the cooling system checked by your SUBARU dealer.

If frequent addition of coolant is necessary, there may be a leak in the engine cooling system. It is recommended that the cooling system and connections be checked for leaks, damage, or looseness.

■ Engine coolant

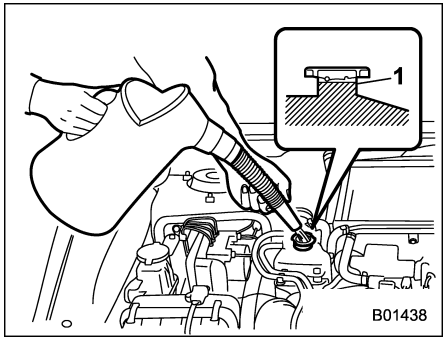
▼ Checking the coolant level



1) “FULL” level mark
2) “LOW” level mark

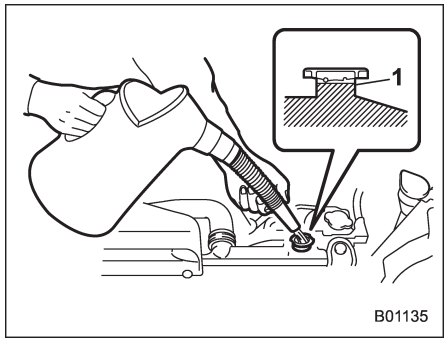
Check the coolant level at each fuel stop.

1. Check the coolant level on the outside of the reservoir while the engine is cool.
2. If the level is close to or lower than the “LOW” level mark, add coolant up to the “FULL” level mark. If the reserve tank is empty, remove the radiator cap and refill coolant up to just below the filler neck as shown in the following illustration.



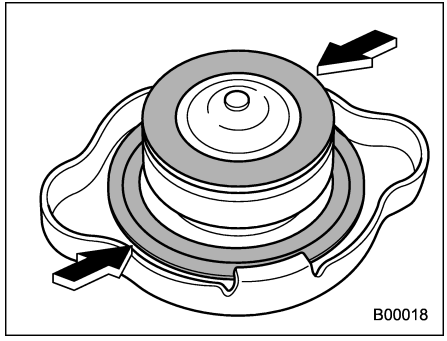
STI

1) Fill up to this level



Except STI

1) Fill up to this level



3. After refilling the reserve tank and the radiator, reinstall the cap and check that the rubber gaskets inside the radiator cap are in the proper position.

– CONTINUED –

⚠ CAUTION

- **Be careful not to spill engine coolant when adding it. If coolant touches the exhaust pipe, it may cause a bad smell, smoke, and/or a fire. If engine coolant gets on the exhaust pipe, be sure to wipe it off.**
- **Do not splash the engine coolant over painted parts. The alcohol contained in the engine coolant may damage the paint surface.**

▼ Changing the coolant

It may be difficult to change the coolant. Have the coolant changed by your SUBARU dealer if necessary.

The coolant should be changed according to the maintenance schedule in the "Warranty and Maintenance Booklet".

Air cleaner element

⚠ WARNING

Do not operate the engine with the air cleaner element removed. The air cleaner element not only filters intake air but also stops flames if the engine backfires. If the air cleaner element is not installed when the engine backfires, you could be burned.

⚠ CAUTION

When replacing the air cleaner element, use a genuine SUBARU air cleaner element. If it is not used, there is the possibility of causing a negative effect to the engine.

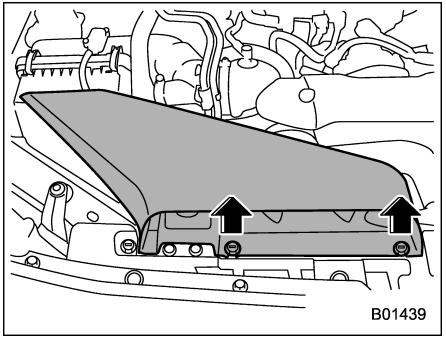
The air cleaner element functions as a filter screen. When the element is perforated or removed, engine wear will be excessive and engine life shortened.

It is not necessary to clean or wash the air cleaner element.

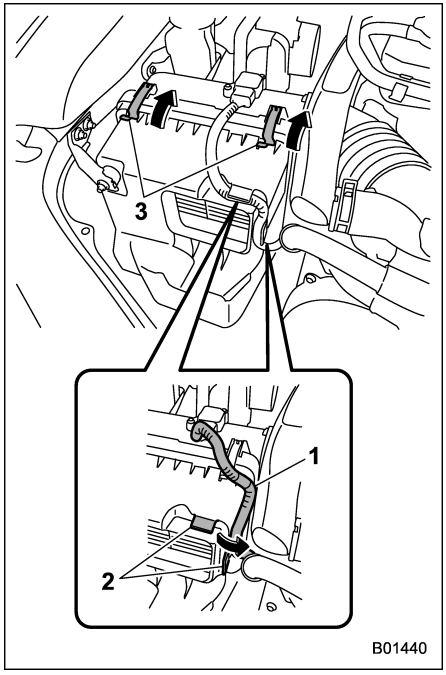
■ Replacing the air cleaner element

Replace the air cleaner element according to the maintenance schedule in the "Warranty and Maintenance Booklet". Under extremely dusty conditions, replace it more frequently. It is recommended that you always use genuine SUBARU parts.

▼ STI

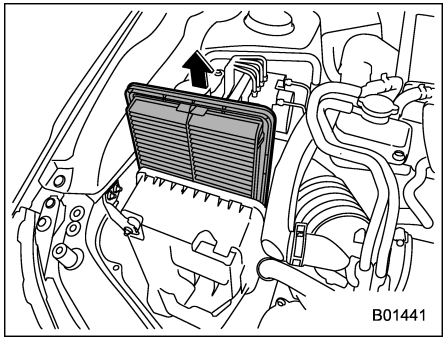


1. Use a screwdriver to undo the clips on the air intake duct, then remove the air intake duct.



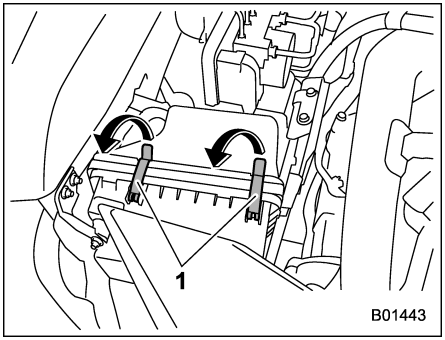
1) Connector cable
2) Guides
3) Clips

2. Remove the connector cable from the guides of the air cleaner case.
3. Unsnap the two clips holding the air cleaner case cover.



4. Open the air cleaner case and remove the air cleaner element.
5. Clean the inside of the air cleaner case and case cover with a damp cloth and install a new air cleaner element.
6. Install the removed or loosened parts in the reverse order of removal.

▼ **Except STI**



1) Clips

1. Unsnap the two clips holding the air cleaner case cover.

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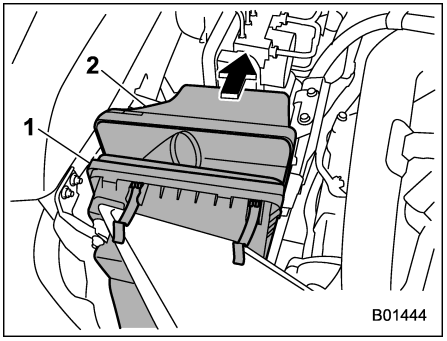
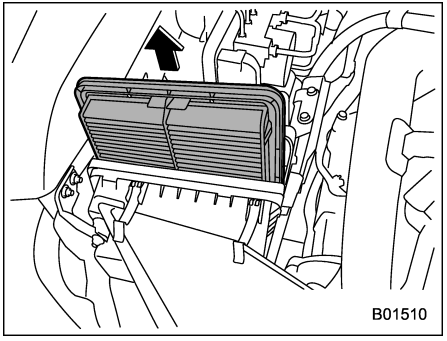


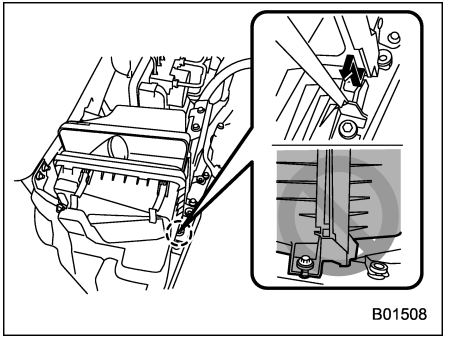
1) Air cleaner case
2) Air cleaner case cover

2. Open the air cleaner case and pull the cover rearward while lifting it up.



3. Remove the air cleaner element.

4. Clean the inside of the air cleaner case and case cover with a damp cloth and install a new air cleaner element.



5. To install the air cleaner case cover, insert the projections on the air cleaner case cover into the slits on the air cleaner case. The illustration above shows an example in which the projections are not fitted into the slits correctly.
6. Install in the reverse order of removal.

Spark plugs

It may be difficult to replace the spark plugs. It is recommended that you have the spark plugs replaced by your SUBARU dealer.

The spark plugs should be replaced according to the maintenance schedule in the “Warranty and Maintenance Booklet”.

■ Recommended spark plugs

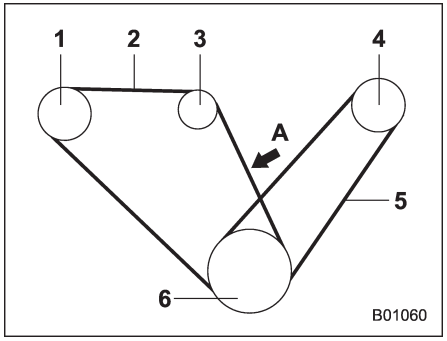
For the recommended spark plugs, refer to “Electrical system” ☞12-8.

Drive belts

NOTE

For models except STI, it is unnecessary to check the deflection of the drive belt periodically because this engine is equipped with an automatic belt tension adjuster. However, replacement of the belt should be done according to the maintenance schedule in the "Warranty and Maintenance Booklet". Consult your SUBARU dealer for replacement.

If the drive belt is loose, cracked or worn, contact your SUBARU dealer.



STI

1) Power steering oil pump pulley
2) Front side belt
3) Alternator pulley
4) Air conditioner compressor pulley
5) Rear side belt
6) Crank pulley

A) 22 lbf (98 N, 10 kgf)

⚠ CAUTION

The front side belt, which runs in conjunction with the following components, must be used within the specified deflection.

- **Power steering oil pump pulley**
- **Alternator pulley**
- **Crank pulley**

Check the deflection of the front side belt and if there is any looseness, cracks, wear or unusual noise on the front side belt, contact your SUBARU dealer.

Continuing to use the vehicle with the belt outside of the specification may cause the engine to malfunction and the above components to malfunction.

To check the deflection of the front side belt, place a straightedge (ruler) across two adjacent pulleys (alternator pulley and crank pulley) and apply a force of 22 lbf (98 N, 10 kgf) midway between the pulleys by using a spring scale. The belt deflection should be the amount specified. If the front side belt is loose, cracked or worn, contact your SUBARU dealer.

in (mm)

	Deflection	
	New belt	Used belt
A	0.28 – 0.35 (7.0 – 9.0)	0.35 – 0.43 (9.0 – 11.0)

The rear side belt is a stretch-type belt, therefore the deflection does not need to be checked. If there are cracks or wear confirmed on the belts and a squeaking noise is heard from them, contact your SUBARU dealer.

Manual transmission oil

It is not necessary to check the transmission oil level. Check that there are no cracks, damage or leakage. However, the oil inspection should be performed according to the maintenance schedule in the “Warranty and Maintenance Booklet”. Consult your SUBARU dealer for details.

■ Recommended grade and viscosity

Each oil manufacturer has its own base oils and additives. Never use different brands together. For details, refer to “Manual transmission, front differential and rear differential gear oil” ☞12-6.

Continuously variable transmission fluid

It is not necessary to check the transmission fluid level. Check that there are no cracks, damage or leakage. However, the fluid inspection should be performed according to the maintenance schedule in the “Warranty and Maintenance Booklet”. Consult your SUBARU dealer for details.

Front differential gear oil (CVT models)

It is not necessary to check the gear oil level. Check that there are no cracks, damage or leakage. However, the oil inspection should be performed according to the maintenance schedule in the “Warranty and Maintenance Booklet”. Consult your SUBARU dealer for details.

■ Recommended grade and viscosity

Each oil manufacturer has its own base oils and additives. Never use different brands together. For details, refer to “Manual transmission, front differential and rear differential gear oil” ☞12-6.

Rear differential gear oil

It is not necessary to check the gear oil level. Check that there are no cracks, damage or leakage. However, the oil inspection should be performed according to the maintenance schedule in the “Warranty and Maintenance Booklet”. Consult your SUBARU dealer for details.

■ Recommended grade and viscosity

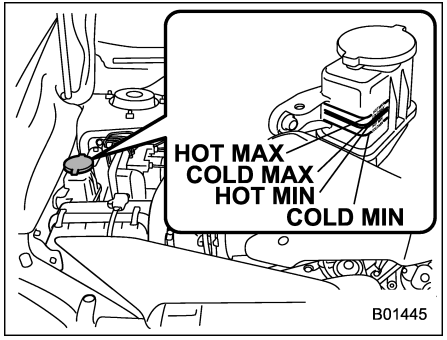
Each oil manufacturer has its own base oils and additives. Never use different brands together. For details, refer to “Manual transmission, front differential and rear differential gear oil” ☞12-6.

⚠ CAUTION

Using a differential gear oil other than the specified oil may cause a decline in vehicle performance.

Power steering fluid (STI)

■ Checking the fluid level



The power steering fluid expands greatly as its temperature rises; the fluid level differs according to fluid temperature. Therefore, the reservoir tank has two different checking ranges for hot and cold fluids.

Check the power steering fluid level monthly.

1. Park the vehicle on a level surface, and stop the engine.
2. Check the fluid level of the reservoir tank.

When the fluid is hot after the vehicle has been run: Check that the oil level is between “HOT MIN” and “HOT MAX” on the surface of the reservoir tank.

When the fluid is cool before the vehicle is run: Check that the oil level is between “COLD MIN” and “COLD MAX” on the surface of the reservoir tank.

3. If the fluid level is lower than the applicable “MIN” line, add the recommended fluid as necessary to bring the level between the “MIN” and “MAX” line.

If the fluid level is extremely low, it may indicate possible leakage. Consult your SUBARU dealer for an inspection.

⚠ WARNING

Be careful not to burn yourself because the fluid may be hot.

⚠ CAUTION

- **When power steering fluid is being added, use only clean fluid, and be careful not to allow any dirt into the tank. And never use different brands together.**
- **Be careful not to spill power steering fluid when adding it. If power steering fluid touches the exhaust pipe, it may cause a bad smell, smoke, and/or a fire. If power steering fluid gets on the**

– CONTINUED –

exhaust pipe, be sure to wipe it off.

■ Recommended fluid

Refer to “Fluids” ☞12-7.

Brake fluid

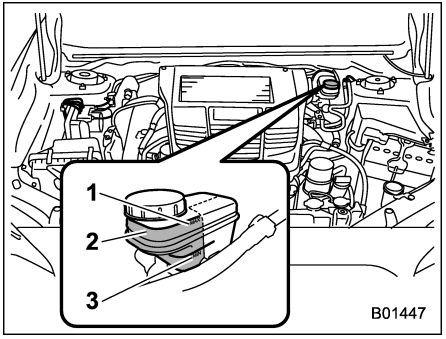
■ Checking the fluid level

⚠ WARNING

- **Never let brake fluid contact your eyes because brake fluid can be harmful to your eyes. If brake fluid gets in your eyes, immediately flush them thoroughly with clean water. For safety, when performing this work, wearing eye protection is advisable.**
- **Brake fluid absorbs moisture from the air. Any absorbed moisture can cause a dangerous loss of braking performance.**
- **If the vehicle requires frequent refilling, there may be a leak. If you suspect a problem, have the vehicle checked at your SUBARU dealer.**

⚠ CAUTION

- **When adding brake fluid, be careful not to allow any dirt into the reservoir.**
- **Never splash the brake fluid over painted surfaces or rubber parts. Alcohol contained in the brake fluid may damage them.**
- **Be careful not to spill brake fluid when adding it. If brake fluid touches the exhaust pipe, it may cause a bad smell, smoke, and/or a fire. If brake fluid gets on the exhaust pipe, be sure to wipe it off.**



1) “MAX” level line
2) The brake fluid level must be checked in this area.
3) “MIN” level line

Check the fluid level monthly.

Check the fluid level on the outside of the reservoir. Because this reservoir is used for both the brake and clutch systems and has chambers for each system, be sure to

check the fluid level for the brake system at the **front part of the reservoir** (shaded area in the illustration). If the fluid level is below “MIN”, add the recommended brake fluid to “MAX”.

Use only brake fluid from a sealed container.

■ Recommended brake fluid

Refer to “Fluids” ☞12-7.

⚠ CAUTION

Never use different brands of brake fluid together. Also, avoid mixing DOT 3 and DOT 4 brake fluids even if they are the same brand.

Clutch fluid (MT models)

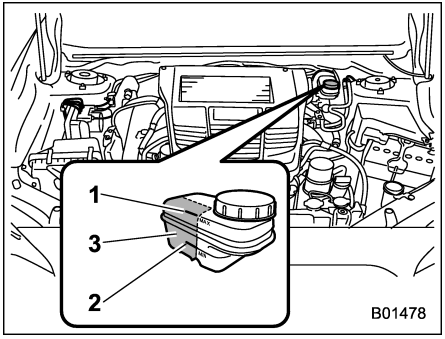
■ Checking the fluid level

⚠ WARNING

Never let clutch fluid contact your eyes because clutch fluid can be harmful to your eyes. If clutch fluid gets in your eyes, immediately flush them thoroughly with clean water. For safety, when performing this work, wearing eye protection is advisable.

⚠ CAUTION

- **Clutch fluid absorbs moisture from the air. Any absorbed moisture can cause improper clutch operation.**
- **If the vehicle requires frequent refilling, there may be a leak. If you suspect a problem, have the vehicle checked at your SUBARU dealer.**
- **When clutch fluid is added, be careful not to allow any dirt into the tank.**
- **Never splash the clutch fluid over painted surfaces or rubber parts. Alcohol contained in the clutch fluid may damage them.**
- **Be careful not to spill clutch fluid when adding it. If clutch fluid touches the exhaust pipe, it may cause a bad smell, smoke, and/or a fire. If clutch fluid gets on the exhaust pipe, be sure to wipe it off.**
- **The fluid level for the clutch system must be checked at the inboard side of the reservoir. It cannot be checked at the outboard side of the reservoir.**



1) “MAX” level line
2) The clutch fluid level must be checked in this area.
3) “MIN” level line

– CONTINUED –

Check the fluid level monthly.

Check the fluid level on the outside of the reservoir. Because this reservoir is used for both the brake and clutch systems and has chambers for each system, be sure to check the fluid level for the clutch system at the **inboard side of the reservoir** (shaded area in the illustration). If the fluid level is below “MIN”, add the recommended clutch fluid to “MAX”.

Use only clutch fluid from a sealed container.

■ Recommended clutch fluid

Refer to “Fluids” ☞12-7.

⚠ CAUTION

Never use different brands of clutch fluid together. Also, avoid mixing DOT 3 and DOT 4 brake fluids even if they are the same brand.

Brake booster

If the brake booster does not operate as described in the following, have it checked by your SUBARU dealer.

1. With the engine off, depress the brake pedal several times, applying the same pedal force each time. The distance the pedal travels should not vary.
2. With the brake pedal depressed, start the engine. The pedal should move slightly down to the floor.
3. With the brake pedal depressed, stop the engine and keep the pedal depressed for 30 seconds. The pedal height should not change.
4. Start the engine again and run for approximately one minute then turn it off. Depress the brake pedal several times to check the brake booster. The brake booster operates properly if the pedal stroke decreases with each depression.

NOTE

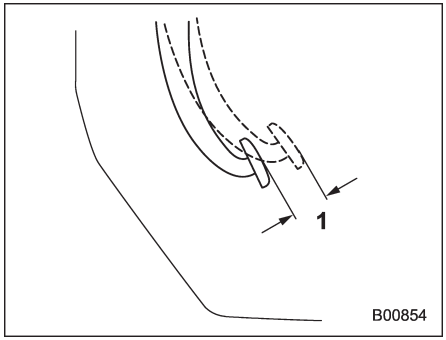
When you depress the brake pedal strongly or suddenly, you might feel that lighter depression of the brake pedal generates a greater braking force. However, even though these occur, they do not indicate any malfunctions, and the brake assist system is operating properly.

Brake assist is not a system that brings more braking ability to the vehicle beyond its breaking capability.

Brake pedal

Check the brake pedal free play and reserve distance according to the maintenance schedule in the “Warranty and Maintenance Booklet”.

■ Checking the brake pedal free play

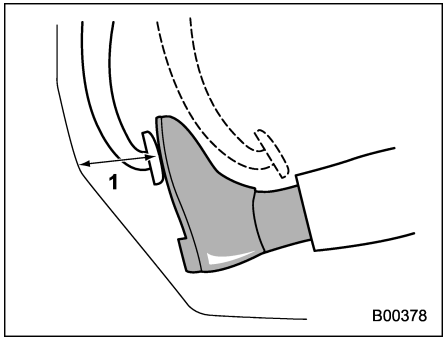


1) 0.02 – 0.08 in (0.5 – 2.0 mm)

Stop the engine and firmly depress the brake pedal several times. Lightly pull the brake pedal up with one finger to check the free play with a force of less than 2 lbf (10 N, 1 kgf).

If the free play is not within proper specification, contact your SUBARU dealer.

■ Checking the brake pedal reserve distance



1) More than 2.56 in (65 mm)

Depress the pedal with a force of approximately 66 lbf (294 N, 30 kgf) and measure the distance between the upper surface of the pedal pad and the floor.

When the measurement is smaller than the specification, or when the pedal does not operate smoothly, contact with your SUBARU dealer.

Clutch pedal (MT models)

Check the clutch pedal free play and reserve distance according to the maintenance schedule in the “Warranty and Maintenance Booklet”.

■ Checking the clutch function

Check the clutch engagement and disengagement.

1. With the engine idling, check that there are no abnormal noises when the clutch pedal is depressed, and that shifting into 1st or reverse feels smooth.
2. Start the vehicle by releasing the pedal slowly to check that the engine and transmission smoothly couple without any sign of slippage.

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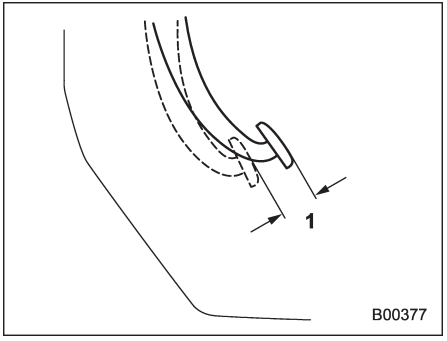
■ Checking the clutch pedal free play



1) 0.16 – 0.43 in (4.0 – 11.0 mm)

Lightly depress the clutch pedal down with your finger until you feel resistance, and check the free play.

If the free play is not within proper specification, contact your SUBARU dealer.

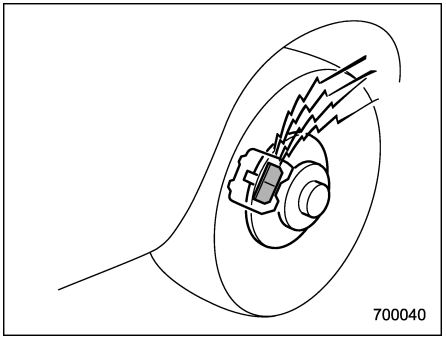
Hill start assist system

Ensure that the Hill start assist system operates properly under the following circumstances.

1. Stop the vehicle on an uphill grade by depressing the brake pedal (all models) and clutch pedal (MT models only), with the engine running.
2. Make sure that the vehicle does not move backward for several seconds after the brake pedal is released.
3. Then make sure the vehicle starts climbing the grade by following the normal starting procedures.

If the Hill start assist system does not operate as described above, contact your SUBARU dealer.

Replacement of brake pad and lining



The disc brakes have audible wear indicators on the brake pads. If the brake pads wear close to their service limit, the wear indicator makes a very audible scraping noise when the brake pedal is applied.

If you hear this scraping noise each time you apply the brake pedal, have the brake pads serviced by your SUBARU dealer as soon as possible.

⚠ CAUTION

If you continue to drive despite the scraping noise from the audible

brake pad wear indicator, it will result in the need for costly brake rotor repair or replacement.

■ Breaking-in of new brake pads and linings

When replacing the brake pad or lining, use only genuine SUBARU parts. After replacement, the new parts must be broken in as follows.

▼ Brake pad and lining

While maintaining a speed of 30 to 40 mph (50 to 65 km/h), step on the brake pedal lightly. Repeat this five or more times.

▼ Parking brake lining

1. Drive the vehicle at a speed of approximately 22 mph (35 km/h).
2. With the parking brake release button pushed in, pull the parking brake lever SLOWLY and GENTLY (pulling with a force of approximately 33.7 lbf [150 N, 15.3 kgf]).
3. Drive the vehicle for approximately 220 yards (200 meters) in this condition.
4. Wait 5 to 10 minutes for the parking brake to cool down. Repeat this procedure.
5. Check the parking brake stroke. If the parking brake stroke is out of the specified range, adjust it by turning the adjusting nut located on the parking brake lever.

Parking brake stroke:
7 – 8 notches / 45 lbf (200 N, 20.4 kgf)

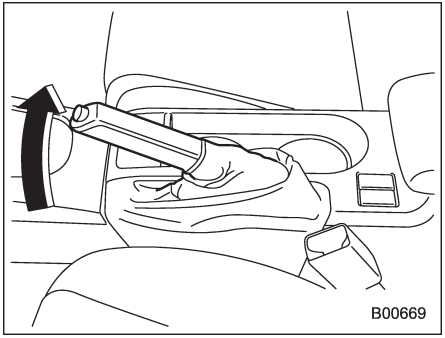
⚠ WARNING

A safe location and situation should be selected for break-in driving.

⚠ CAUTION

Pulling the parking brake lever too forcefully may cause the rear wheels to lock. To avoid this, be certain to pull the lever up slowly and gently.

Parking brake stroke



Check the parking brake stroke according to the maintenance schedule in the “Warranty and Maintenance Booklet”. When the parking brake is properly adjusted, braking power is fully applied by pulling the lever up 7 to 8 notches gently but firmly (approximately 45 lbf [200 N, 20.4 kgf]). If the parking brake lever stroke is not within the specified range, have the brake system checked and adjusted at your SUBARU dealer.

Tires and wheels

■ Types of tires

You should be familiar with type of tires present on your vehicle.

▼ All season tires

All season tires are designed to provide an adequate measure of traction, handling and braking performance in year-round driving including snowy and icy road conditions. However all season tires do not offer as much traction performance as winter (snow) tires in heavy or loose snow or on icy roads.

All season tires are identified by “ALL SEASON” and/or “M+S” (Mud & Snow) on the tire sidewall.

▼ Summer tires

Summer tires are high-speed capability tires best suited for highway driving under dry conditions.

Summer tires are inadequate for driving on slippery roads such as on snow-covered or icy roads.

If you drive your vehicle on snow-covered or icy roads, we strongly recommend the use of winter (snow) tires.

When installing winter tires, be sure to replace all four tires.

▼ Winter (snow) tires

Winter tires are best suited for driving on snow-covered and icy roads. However winter tires do not perform as well as summer tires and all season tires on roads other than snow-covered and icy roads.

■ Tire pressure monitoring system (TPMS) (if equipped)

The tire pressure monitoring system provides the driver with a warning message by sending a signal from a sensor that is installed in each wheel when tire pressure is severely low. The tire pressure monitoring system will activate only when the vehicle is driven. Also, this system may not react immediately to a sudden drop in tire pressure (for example, a blow-out caused by running over a sharp object).

If you adjust the tire pressures in a warm garage and will then drive the vehicle in cold outside air, the resulting drop in tire pressures may cause the low tire pressure warning light to illuminate. To avoid this problem when adjusting the tire pressures in a warm garage, inflate the tires to pressures higher than those shown on the tire placard. Specifically, inflate them by an extra 1 psi (6.9 kPa, 0.07 kgf/cm^2) for every difference of 10°F (5.6°C) between the temperature in the garage and the temperature outside. By way of example, the following table shows the required tire pressures that correspond to various outside temperatures when the temperature in the garage is 60°F (15.6°C).

Example:

Tire size: 245/40R18 97W

Standard tire pressures:

Front: 33 psi (230 kPa, 2.3 kgf/cm^2)

Rear: 32 psi (220 kPa, 2.2 kgf/cm^2)

Garage temperature: 60°F (15.6°C)

Outside temperature	Adjusted pressure [psi (kPa, kgf/cm^2)]	
	Front	Rear
30°F (−1°C)	36 (250, 2.5)	35 (240, 2.4)
10°F (−12°C)	38 (260, 2.6)	37 (255, 2.55)
−10°F (−23°C)	40 (275, 2.75)	39 (270, 2.7)

If the low tire pressure warning light illuminates when you drive the vehicle in cold outside air after adjusting the tire pressures in a warm garage, re-adjust the tire pressures using the method described above. Then, increase the vehicle speed to at least 20 mph (32 km/h) and check to see that the low tire pressure warning light turns off a few minutes later. If the low tire pressure warning light does not turn off, the tire pressure monitoring system may not be functioning normally. In this event,

go to a SUBARU dealer to have the system inspected as soon as possible.

While the vehicle is driven, friction between tires and the road surface causes the tires to warm up. After illumination of the low tire pressure warning light, any increase in the tire pressures caused by an increase in the outside air temperature or by an increase in the temperature in the tires can cause the low tire pressure warning light to turn off.

System resetting is necessary when the wheels are changed (for example, a switch to snow tires) and new TPMS valves are installed on the newly fitted wheels. Have this work performed by a SUBARU dealer following wheel replacement.

It may not be possible to install TPMS valves on certain wheels that are on the market. Therefore, if you change the wheels (for example, a switch to snow tires), use wheels that have the same part number as the standard-equipment wheels. Without four operational TPMS valve/sensors on the wheels, the TPMS will not fully function and the warning light on the combination meter will illuminate steadily after blinking for approximately one minute.

When a tire is replaced, adjustments are necessary to ensure continued normal operation of the tire pressure monitoring system. As with wheel replacement, therefore, you should have the work performed by a SUBARU dealer.

⚠ WARNING

If the low tire pressure warning light does not illuminate briefly after the ignition switch is turned ON or the light illuminates steadily after blinking for approximately one minute, you should have your Tire Pressure Monitoring System checked at a SUBARU dealer as soon as possible.

If this light illuminates while driving, never brake suddenly and keep driving straight ahead while gradually reducing speed. Then slowly pull off the road to a safe place. Otherwise an accident involving serious vehicle damage and serious personal injury could occur.

If this light still illuminates while driving after adjusting the tire pressure, a tire may have significant damage and a fast leak that causes the tire to lose air rapidly. If you have a flat tire, replace it with a spare tire as soon as possible.

When a spare tire is mounted or a wheel rim is replaced without the original pressure sensor/transmitter being transferred, the low tire pressure warning light will illuminate steadily after blinking for approximately one minute. This indicates the TPMS is unable to monitor all four road wheels. Contact your SUBARU dealer as soon as possible for tire and sensor replacement and/or system resetting. If the light illuminates steadily after blinking for approximately one minute, promptly contact a SUBARU dealer to have the system inspected.

■ Tire inspection

Check on a daily basis that the tires are free from serious damage, nails, and stones. At the same time, check the tires for abnormal wear.

Contact your SUBARU dealer immediately if you find any problem.

NOTE

• When the wheels and tires strike curbs or are subjected to harsh treatment as when the vehicle is driven on a rough surface, they can suffer damage

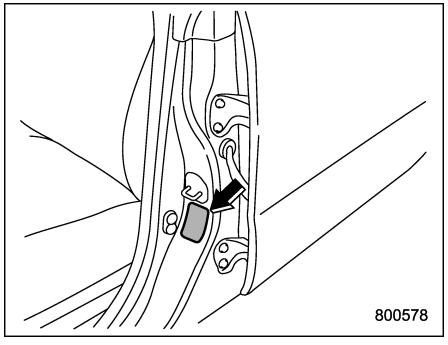
– CONTINUED –

that cannot be seen with the naked eye. This type of damage does not become evident until time has passed. Try not to drive over curbs, potholes or on other rough surfaces. If doing so is unavoidable, keep the vehicle's speed down to a walking pace or less, and approach the curbs as squarely as possible. Also, make sure the tires are not pressed against the curb when you park the vehicle.

• If you feel unusual vibration while driving or find it difficult to steer the vehicle in a straight line, one of the tires and/or wheels may be damaged. Drive slowly to the nearest authorized SUBARU dealer and have the vehicle inspected.

■ Tire pressures and wear

Maintaining the correct tire pressures helps to maximize the tires' service lives and is essential for good running performance. Check and, if necessary, adjust the pressure of each tire (including the spare) at least once a month (for example, during a fuel stop) and before any long journey.



Tire placard

Check the tire pressures when the tires are cold. Use a pressure gauge to adjust the tire pressures to the values shown on the tire placard. The tire placard is located on the door pillar on the driver's side.

Driving even a short distance warms up the tires and increases the tire pressures. Also, the tire pressures are affected by the outside temperature. It is best to check tire pressure outdoors before driving the vehicle.

When a tire becomes warm, the air inside it expands, causing the tire pressure to increase. Be careful not to mistakenly release air from a warm tire to reduce its pressure.

NOTE

• The air pressure in a tire increases by approximately 4.3 psi (30 kPa, 0.3 kgf/cm^2) when the tire becomes warm.

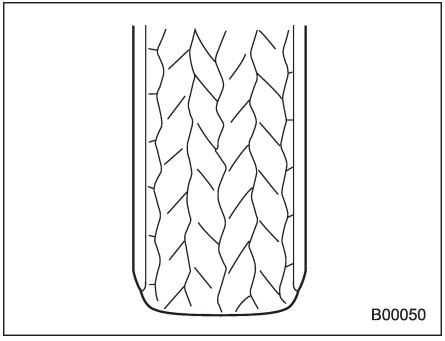
• The tires are considered cold when the vehicle has been parked for at least three hours or has been driven less than one mile (1.6 km).

⚠ WARNING

Do not let air out of warm tires to adjust pressure. Doing so will result in low tire pressure.

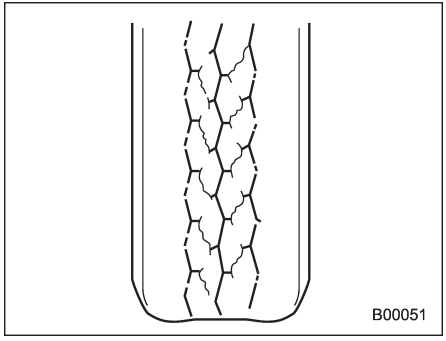
Incorrect tire pressures detract from controllability and ride comfort, and they cause the tires to wear abnormally.

• **Correct tire pressure** (tread worn evenly)



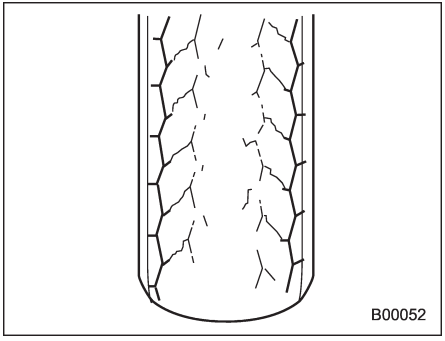
Roadholding is good, and steering is responsive. Rolling resistance is low, so fuel consumption is also lower.

• **Abnormally low tire pressure** (tread worn at shoulders)



Rolling resistance is high, so fuel consumption is also higher.

• **Abnormally high tire pressure** (tread worn in center)



Ride comfort is poor. Also, the tire magnifies the effects of road-surface bumps and dips, possibly resulting in vehicle damage.

If the tire placard shows tire pressures for the vehicle when fully loaded, adjust the tire pressures to the values that match current loading conditions.

⚠ WARNING

Driving at high speeds with excessively low tire pressures can cause the tires to deform severely and to rapidly become hot. A sharp increase in temperature could cause tread separation, and destruction of

– CONTINUED –

the tires. The resulting loss of vehicle control could lead to an accident.

■ Wheel balance

Each wheel was correctly balanced when your vehicle was new, but the wheels will become unbalanced as the tires become worn during use. Wheel imbalance causes the steering wheel to vibrate slightly at certain vehicle speeds and detracts from the vehicle's straight-line stability. It can also cause steering and suspension system problems and abnormal tire wear. If you suspect that the wheels are not correctly balanced, have them checked and adjusted by your SUBARU dealer. Also have them adjusted after tire repairs and after tire rotation.

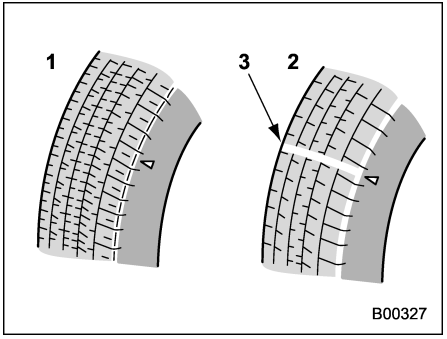
⚠ CAUTION

Loss of correct wheel alignment causes the tires to wear on one side and reduces the vehicle's running stability. Contact your SUBARU dealer if you notice abnormal tire wear.

NOTE

The suspension system is designed to hold each wheel at a certain alignment (relative to the other wheels and to the road) for optimum straight-line stability and cornering performance.

■ Wear indicators



1) New tread
2) Worn tread
3) Tread wear indicator

Each tire incorporates a tread wear indicator, which becomes visible when the depth of the tread grooves decreases to 0.063 in (1.6 mm). A tire must be replaced when the tread wear indicator appears as a solid band across the tread.

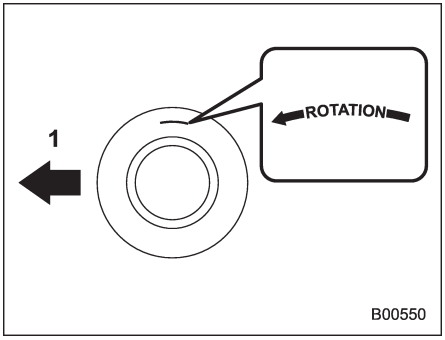
⚠ WARNING

When a tire's tread wear indicator becomes visible, the tire is worn beyond the acceptable limit and must be replaced immediately. With a tire in this condition, driving at high speeds in wet weather can cause the vehicle to hydroplane. The resulting loss of vehicle control can lead to an accident.

NOTE

For safety, inspect tire tread regularly and replace the tires before their tread wear indicators become visible.

■ Tire rotation direction mark

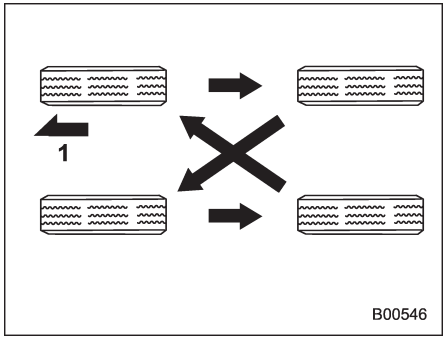


Example of tire rotation direction mark
1) Front

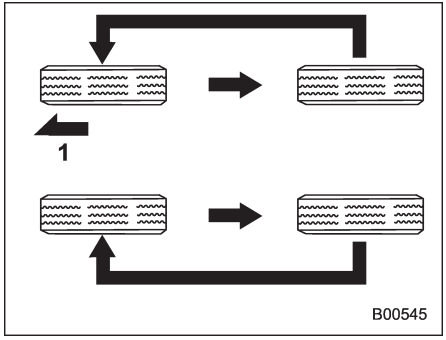
If the tire has the rotation direction specification, the tire rotation direction mark is placed on its sidewall.

When you install a tire that has the tire rotation direction mark, install the tire with the direction mark facing forward.

■ Tire rotation



Vehicles equipped with 4 non-unidirectional tires
1) Front



Vehicles equipped with unidirectional tires
1) Front

Tire wear varies from wheel to wheel. Move the tires to the positions shown in the illustration each time they are rotated. For the tire rotation schedule, refer to the “Warranty and Maintenance Booklet”.

Replace any damaged or unevenly worn tires at the time of rotation. After tire rotation, adjust the tires pressures and make sure the wheel nuts are correctly tightened.

After driving approximately 600 miles (1,000 km), check the wheel nuts again and retighten any nut that has become loose.

■ Tire replacement

The wheels and tires are important and integral parts of your vehicle’s design; they cannot be changed arbitrarily. The tires fitted as standard equipment are optimally matched to the characteristics of the vehicle and were selected to give the best possible combination of running performance, ride comfort, and service life. It is essential for every tire to have a size and construction matching those shown on the tire placard and to have a speed symbol and load index matching those shown on the tire placard.

Using tires of a non-specified size detracts

– CONTINUED –

from controllability, ride comfort, braking performance, speedometer accuracy and odometer accuracy. It also creates incorrect body-to-tire clearances and inappropriately changes the vehicle's ground clearance.

All four tires must be the same in terms of manufacturer, brand (tread pattern), construction, and size. You are advised to replace the tires with new ones that are identical to those fitted as standard equipment.

For safe vehicle operation, SUBARU recommends replacing all four tires at the same time.

⚠ WARNING

- **When replacing or installing tire(s), all four tires must be the same for the following items.**
  (a) Size
  (b) Circumference
  (c) Speed symbol
  (d) Load index
  (e) Construction
  (f) Manufacturer
  (g) Brand (tread pattern)
  (h) Degrees of wear

  For items (a) to (d), you must obey the specification that is printed on the tire placard. The tire placard is located on the driver's door pillar.

  If all four tires are not the same in items (a) to (h), there is a possibility that it may lead to serious mechanical damage to the drive train of your car and affect the following factors.
  — Ride
  — Handling
  — Braking
  — Speedometer/Odometer calibration
  — Clearance between the body and the tires

  It also may be dangerous and lead to loss of vehicle control, and it can lead to an accident.
- **Use only radial tires. Do not use radial tires together with belted bias tires and/or bias-ply tires. Doing so can dangerously reduce controllability, resulting in an accident.**

■ Wheel replacement

When replacing wheels due, for example, to damage, make sure the replacement wheels match the specifications of the wheels that are fitted as standard equipment. Replacement wheels are available from SUBARU dealers.

⚠ WARNING

Use only those wheels that are specified for your vehicle. Wheels not meeting specifications could interfere with brake caliper operation and may cause the tires to rub against the wheel well housing during turns. The resulting loss of vehicle control could lead to an accident.

NOTE

When any of the wheels are removed and replaced for tire rotation or to change a flat tire, always check the tightness of the wheel nuts after driving approximately 600 miles (1,000 km). If any nut is loose, tighten it to the specified torque.

Aluminum wheels

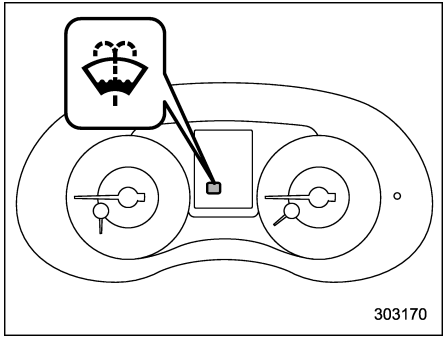
Aluminum wheels can be scratched and damaged easily. Handle them carefully to maintain their appearance, performance, and safety.

- When any of the wheels are removed and replaced for tire rotation or to change a flat tire, always check the tightness of the wheel nuts after driving approximately 600 miles (1,000 km). If any nut is loose, tighten it to the specified torque.
- Never apply oil to the threaded parts, wheel nuts, or tapered surface of the wheel.
- Never let the wheel rub against sharp protrusions or curbs.
- When wheel nuts, balance weights, or the center cap is replaced, be sure to replace them with genuine SUBARU parts designed for aluminum wheels.

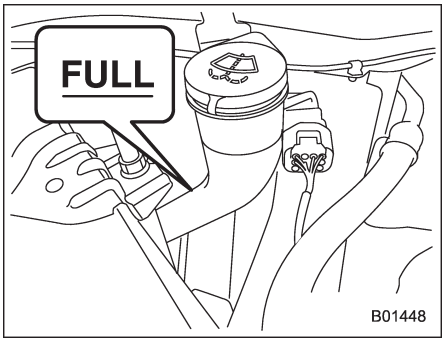
Windshield washer fluid

CAUTION

Never use engine coolant as washer fluid because it could cause paint damage.



When there is only a small amount of washer fluid remaining, the windshield washer fluid warning indicator will illuminate. When this occurs, refill the washer fluid as follows.



Remove the washer tank filler cap, then add windshield washer fluid until it reaches the “FULL” mark on the tank. If windshield washer fluid is unavailable use clean water.

In areas where water freezes in winter, use an anti-freeze type windshield washer fluid. SUBARU Windshield Washer Fluid contains 58.5% methyl alcohol and 41.5% surfactant, by volume. Its freezing temperature varies according to how much it is diluted, as indicated in the following table.

– CONTINUED –

Washer Fluid Concentration	Freezing Temperature
30%	**10.4°F (−12°C)**
50%	**−4°F (−20°C)**
100%	**−49°F (−45°C)**

In order to prevent freezing of washer fluid, check the freezing temperatures in the table above when adjusting the fluid concentration to the outside temperature.

If you fill the reservoir tank with a fluid with a different concentration from the one used previously, purge the old fluid from the piping between the reservoir tank and washer nozzles by operating the washer for a certain period of time. Otherwise, if the concentration of the fluid remaining in the piping is too low for the outside temperature, it may freeze and block the nozzles.

⚠ CAUTION

- **Adjust the washer fluid concentration appropriately for the outside temperature. If the concentration is inappropriate, sprayed washer fluid may freeze on the windshield and obstruct your view, and the fluid may freeze in the reservoir tank.**
- **State or local regulations on volatile organic compounds may restrict the use of methanol, a common windshield washer antifreeze additive. Washer fluids containing non-methanol antifreeze agents should be used only if they provide cold weather protection without damaging your vehicle's paint, wiper blades or washer system.**

Replacement of wiper blades

Grease, wax, insects, or other material on the windshield or the wiper blade results in jerky wiper operation and streaking on the glass. If you cannot remove the streaks after operating the windshield washer or if the wiper operation is jerky, clean the outer surface of the windshield (or rear window) and the wiper blades using a sponge or soft cloth with a neutral detergent or mild-abrasive cleaner. After cleaning, rinse the windshield and wiper blades with clean water. The windshield is clean if beads do not form when you rinse the windshield with water.

⚠ CAUTION

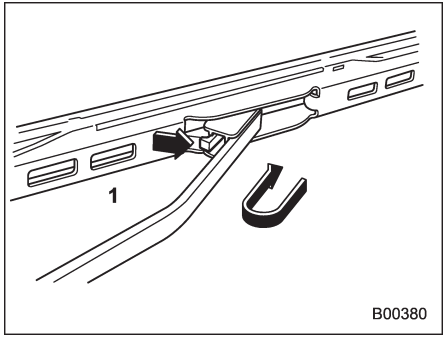
- **Do not clean the wiper blades with gasoline or a solvent, such as paint thinner or benzine. This will cause deterioration of the wiper blades.**
- **While removing the wiper blades from the wiper arms, do not return the wiper arms to the original positions. Otherwise, the windshield surface may be scratched.**
- **When returning the raised wiper arms to the original positions,**

carefully return the wiper arms on the windshield by hand. You should not return the wiper arms to the windshield only by the return spring. Otherwise, the wiper arms may be deformed and/or the windshield surface may be scratched.

If you cannot eliminate the streaking even after following this method, replace the wiper blades using the following procedures.

■ Windshield wiper blade assembly

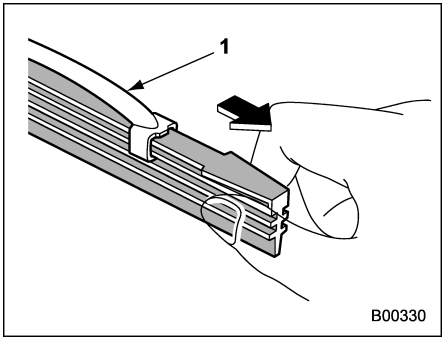
1. Raise the wiper arm off the windshield.



1) Stopper

2. Remove the wiper blade assembly by holding its pivot area and pushing it in the direction shown by the arrow while depressing the wiper blade stopper.
3. Install the wiper blade assembly to the wiper arm. Make sure that it locks in place.
4. Hold the wiper arm by hand and slowly lower it in position.

■ Windshield wiper blade rubber



1) Metal support

1. Grasp the locked end of the blade rubber assembly and pull it firmly until the stoppers on the rubber are free of the metal support.

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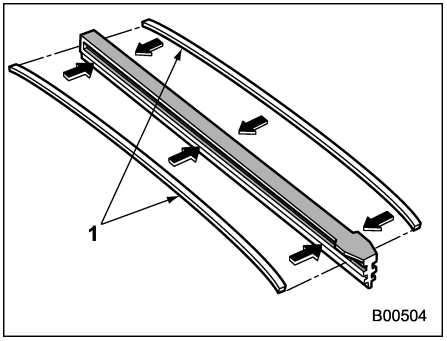
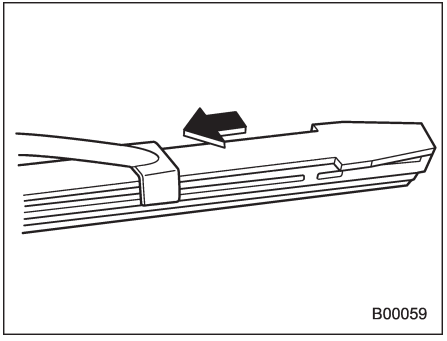
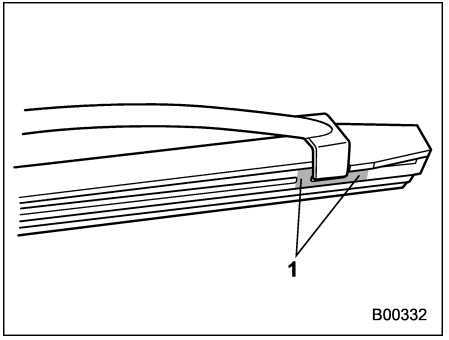


1) Metal spines

2. If the new blade rubber is not provided with two metal spines, remove the metal spines from the old blade rubber and install them in the new blade rubber.



3. Align the claws of the metal support with the grooves in the rubber and slide the blade rubber assembly into the metal support until it locks.



1) Stopper

4. Be sure to position the claws at the end of the metal support between the stoppers on the rubber as shown. If the rubber is not retained properly, the wiper blade may scratch the windshield.

Battery

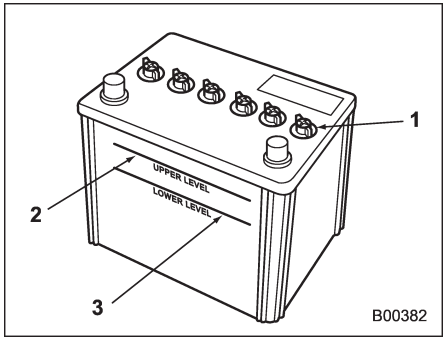
WARNING

- **Before beginning work on or near any battery, be sure to extinguish all cigarettes, matches, and lighters. Never expose a battery to an open flame or electric sparks. Batteries give off a gas which is highly flammable and explosive.**
- **For safety, in case an explosion does occur, wear eye protection or shield your eyes when working near any battery. Never lean over a battery.**
- **Do not let battery fluid contact eyes, skin, fabrics, or paint because battery fluid is a corrosive acid. If battery fluid gets on your skin or in your eyes, immediately flush the area with water thoroughly. Seek medical help immediately if acid has entered the eyes.**

  If battery fluid is accidentally swallowed, immediately drink a large amount of milk or water, and seek medical attention immediately.
- **To lessen the risk of sparks,**

remove rings, metal watchbands, and other metal jewelry. Never allow metal tools to contact the positive battery terminal and anything connected to it WHILE you are at the same time in contact with any other metallic portion of the vehicle because a short circuit will result.

- **Keep everyone including children away from the battery.**
- **Charge the battery in a well-ventilated area.**
- **Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. *Wash hands after handling*.**



1) Cap
2) Upper level
3) Lower level

It is unnecessary to periodically check the battery fluid level or periodically refill with distilled water.

However, if the battery fluid level is below the lower level, remove the cap. Fill to the upper level with distilled water.

CAUTION

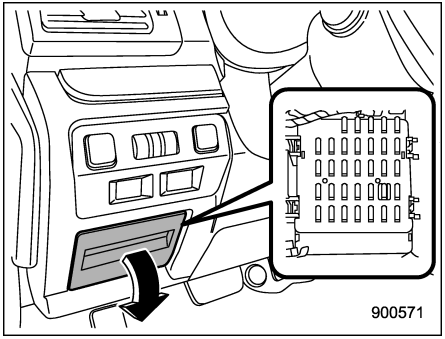
Never use more than 10 amperes when charging the battery because it will shorten battery life.

Fuses

CAUTION

Never replace a fuse with one having a higher rating or with material other than a fuse because serious damage or a fire could result.

The fuses are designed to melt during an overload to prevent damage to the wiring harness and electrical equipment. The fuses are located in two fuse boxes.



One is located under the instrument panel behind the fuse box cover on the driver's seat side. To remove the cover, pull it out.

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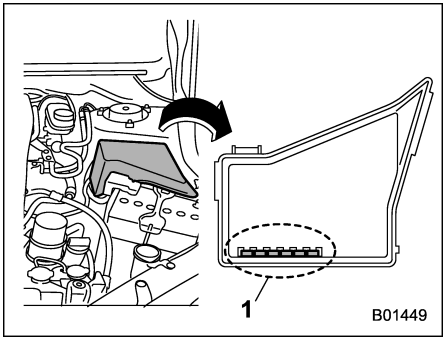
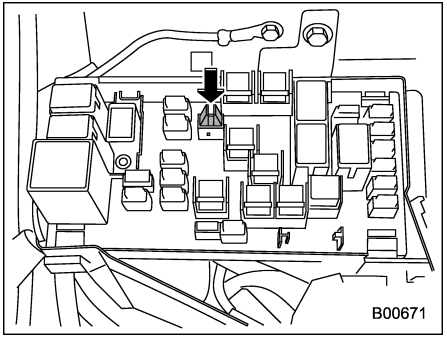
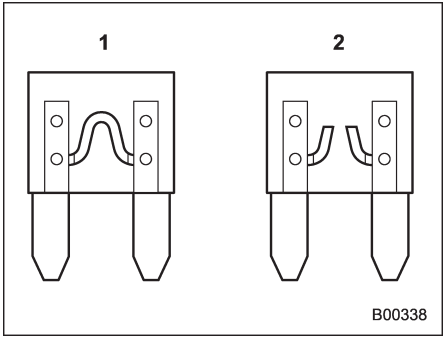


1) Spare fuses

The other one (main fuse box) is housed in the engine compartment. Also, the spare fuses are stored in the fuse box cover.



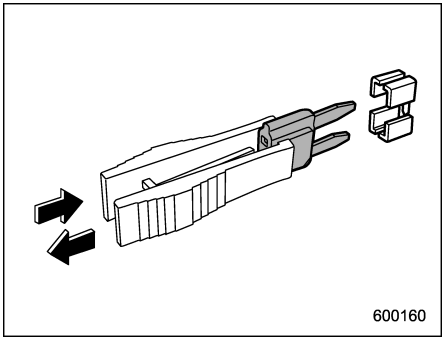
The fuse puller is stored in the main fuse box in the engine compartment.



1) Good
2) Blown

If any lights, accessories or other electrical controls do not operate, inspect the corresponding fuse. If a fuse has blown, replace it.

1. Turn the ignition switch to the “LOCK”/“OFF” position and turn off all electrical accessories.
2. Remove the cover.
3. Determine which fuse may be blown. Look at the back side of each fuse box cover and refer to “Fuses and circuits” ☞12-9.



4. Pull out the fuse with the fuse puller.
5. Inspect the fuse. If it has blown, replace it with a spare fuse of the same rating.
6. If the same fuse blows again, this indicates that its system has a problem. Contact your SUBARU dealer for repairs.

Installation of accessories

Always consult your SUBARU dealer before installing fog lights or any other electrical equipment in your vehicle. Such accessories may cause the electronic system to malfunction if they are incorrectly installed or if they are not suited for the vehicle.

Replacing bulbs

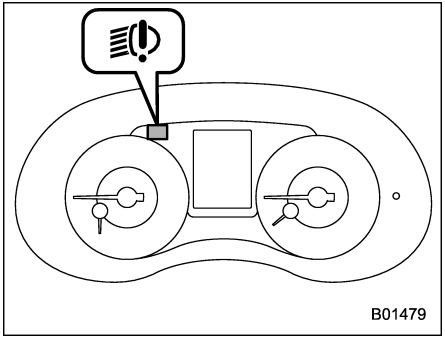
⚠ WARNING

Bulbs may become very hot while illuminated. Before replacing bulbs, turn off the lights and wait until the bulbs cool down. Otherwise, there is a risk of sustaining a burn injury.

⚠ CAUTION

- **Replace any bulb only with a new bulb of the specified wattage. Using a bulb of different wattage could result in a fire. For the specified wattage of each bulb, refer to "Bulb chart" ☞12-15.**
- **Do not touch the glass portion of the light bulb with bare hands. When holding the glass portion is unavoidable, hold it using with a clean dry cloth to avoid getting moisture and grease on the bulb. If there is any fingerprints or grease on the bulb surface, wipe them away with a soft cloth moistened with alcohol. Also, if the bulb is scratched or dropped, it may blow out or crack.**

■ Headlights (models with LED headlights)



The LED headlight warning light illuminates if the LED headlights malfunction. Have your vehicle inspected at a SUBARU dealer as soon as possible.

■ High beam headlight

NOTE

- **If headlight aiming is required, consult your SUBARU dealer for proper adjustment of the headlight aim.**
- **It may be difficult to replace the bulbs. Have the bulbs replaced by your SUBARU dealer if necessary.**

Perform the following steps to replace the bulbs.

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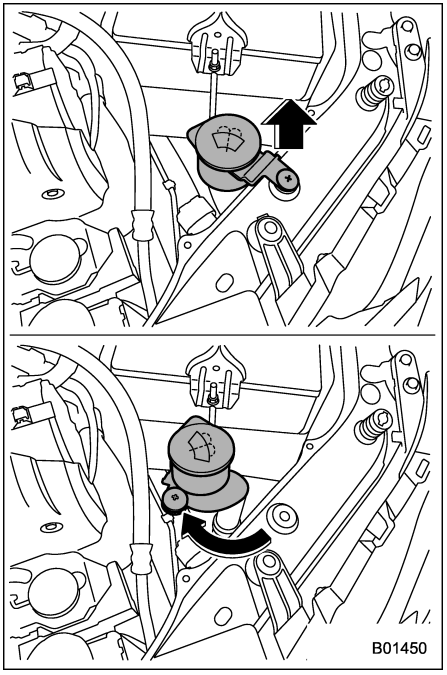
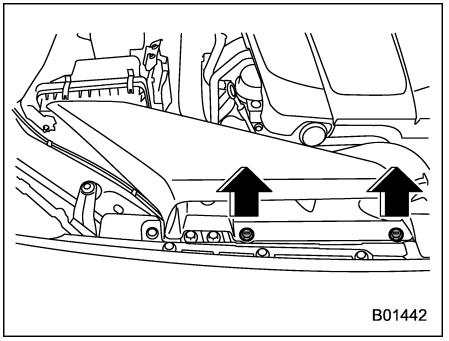


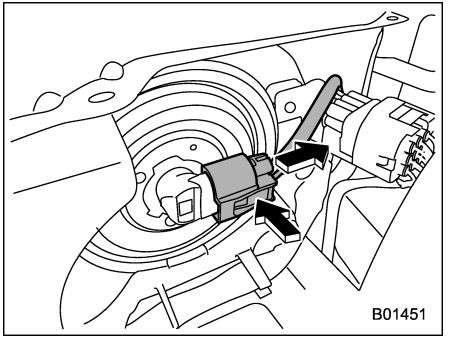
Left-hand side

1. **Left-hand side:** Use a screwdriver to remove the secured clip of the washer tank. To make it easy to access the bulb, turn the neck of the washer fluid filler pipe as illustrated.

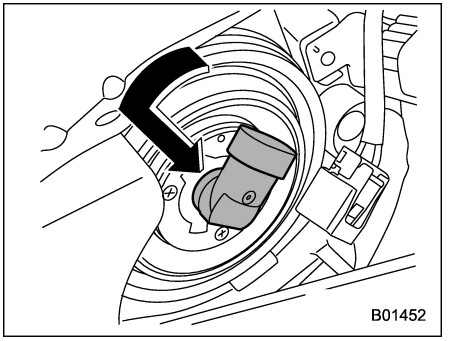


Right-hand side

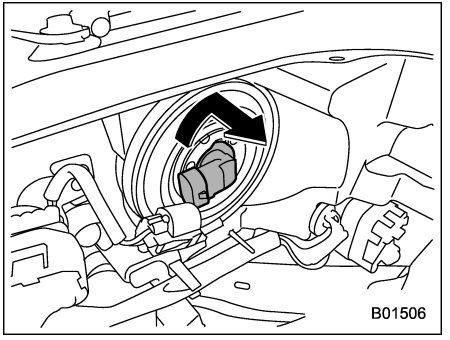
Right-hand side: Use a screwdriver to undo the clips on the air intake duct, then remove the air intake duct.



2. Disconnect the electrical connector from the bulb as pushing the tab.



Left-hand side



Right-hand side

3. **Left-hand side:** Remove the bulb from the headlight assembly by turning it counterclockwise.

Right-hand side: Remove the bulb from

the headlight assembly by turning it clockwise.

4. Replace the bulb with new one. At this time, use care not to touch the bulb surface.

5. To install the bulb to the headlight assembly, turn it to the reverse direction until it clicks.

6. Reconnect the electrical connector.

7. **Left-hand side:** Set the washer fluid filler pipe to the original place and secure it by clip.

Right-hand side: Install the air intake duct with clips.

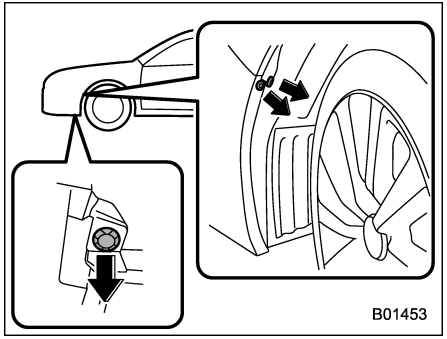
■ Low beam headlight (models without LED headlights), front side marker light (if equipped), parking light (models without LED headlights) and front turn signal light

NOTE

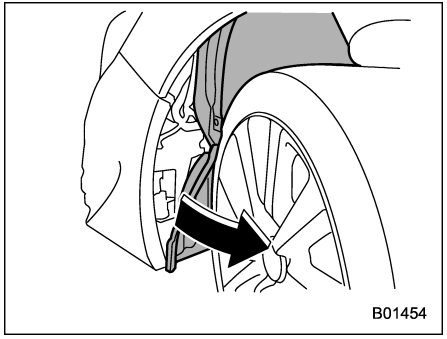
• If headlight aiming is required, consult your SUBARU dealer for proper adjustment of the headlight aim.

• It may be difficult to replace the bulbs. Have the bulbs replaced by your SUBARU dealer if necessary.

1. Start the engine and turn the steering wheel fully in the opposite direction of the bulb to be replaced.
2. Stop the engine.

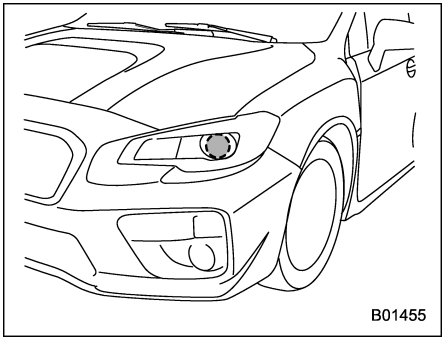


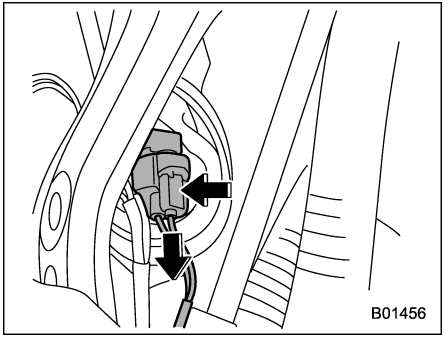
3. Remove the clips from the mud guard.



4. Pull off the mud guard.

▼ **Low beam headlight**





1. Disconnect the electrical connector from the bulb as pushing the tab.

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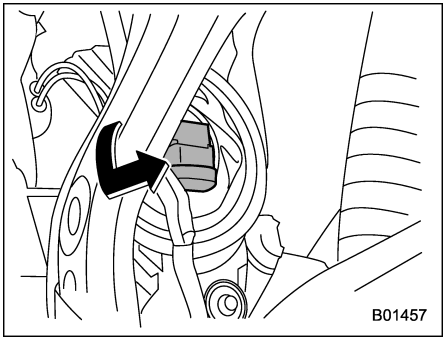
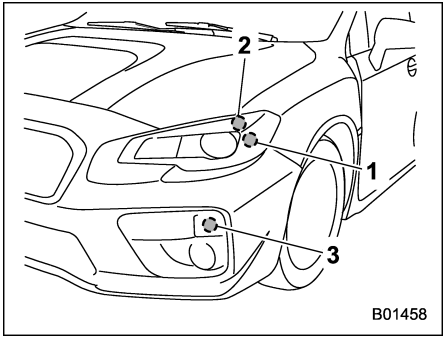
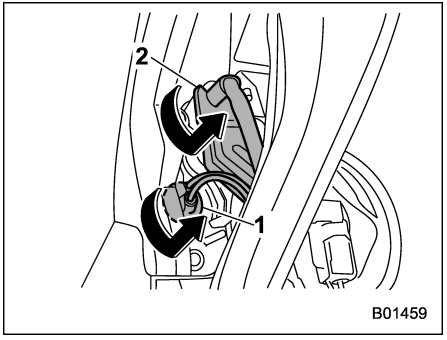


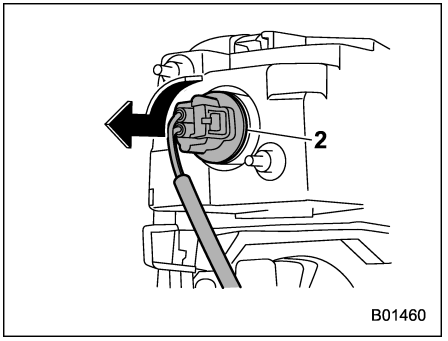
2. Remove the bulb from the headlight assembly by turning it counterclockwise.
3. Replace the bulb with a new one. At this time, use care not to touch the bulb surface.
4. To install the bulb to the headlight assembly, turn it clockwise until it clicks.
5. Reconnect the electrical connector.
6. Reattach the mud guard.

▼ Front side marker light, parking light and front turn signal light





1) Front side marker light
2) Parking light



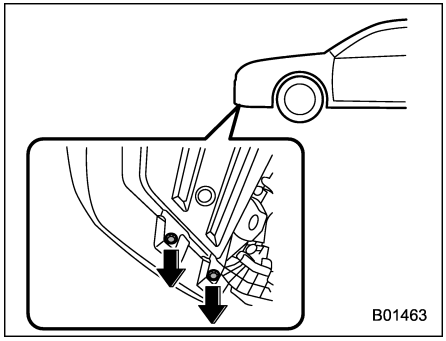
3) Front turn signal light

1. Turn the socket counterclockwise and pull it out.
2. Pull out the bulb from the socket and replace the bulb with a new one.
3. After replacing the bulb, reattach the mud guard.

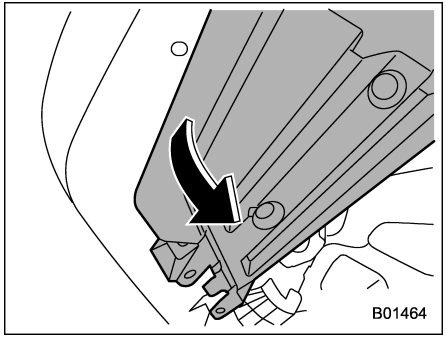
■ Front fog light (if equipped)

NOTE

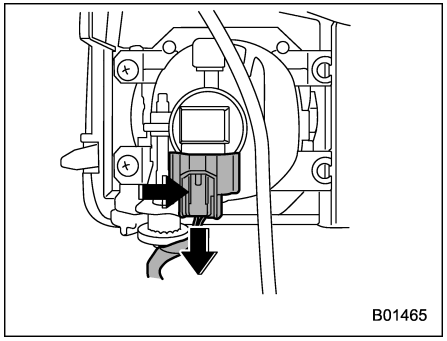
It may be difficult to replace the bulbs. Have the bulbs replaced by your SUBARU dealer if necessary.



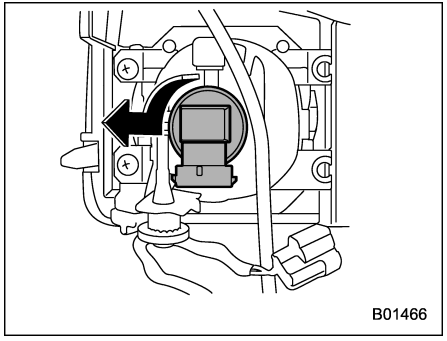
1. Remove the clips.



2. Turn over the mud guard.

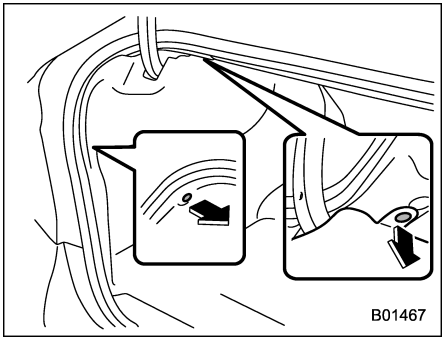


3. Disconnect the electrical connector from the bulb as pushing the tab.

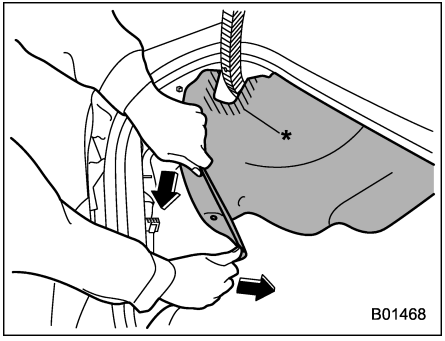


4. Remove the bulb by turning it counter-clockwise.
5. Replace the bulb with a new one.
6. After replacing the bulb, reattach the mud guard.

■ Rear combination lights



1. Remove the clips from the trunk trim with a flat-head screwdriver.

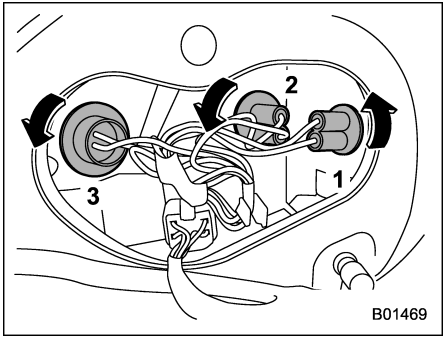


– CONTINUED –

2. Open the rear portion of the trunk trim panel as illustrated.

NOTE

Make sure that the "*" part of the trunk trim in the illustration does not contact the trunk lid stay. If the "*" part is bent, the trunk trim may be torn.



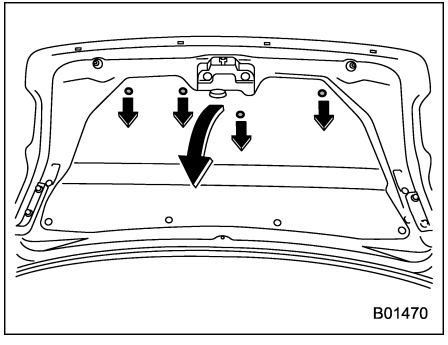
1) Rear side marker light
2) Backup light
3) Rear turn signal light

3. Remove the bulb socket from the rear combination light assembly by turning it counterclockwise.
4. Pull the bulb out of the bulb socket and replace it with a new one.
5. Set the bulb socket into the rear combination light assembly and turn it clockwise until it locks.
6. Secure the rear trunk trim panel with the clips.

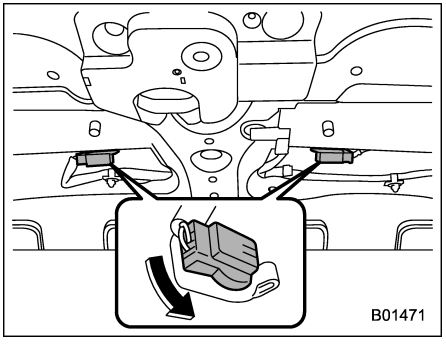
NOTE

When replacing a bulb of the rear side marker light, detach the bulb socket of the backup light in advance. After replacing the bulb, first attach the side marker light, and then attach the back-up light.

■ License plate light



1. Open the trunk and remove the clips from the trunk lid trim with a flat-head screwdriver.
2. Turn over the trunk lid trim.



3. Turn the bulb socket counterclockwise and pull out the socket.
4. Pull the bulb out of the socket.
5. Install a new bulb.
6. Reinstall the bulb socket and the trunk lid trim.

■ Other bulbs

It may be difficult to replace the bulbs. Have the bulbs replaced by your SUBARU dealer if necessary.

Battery replacement

The access key / transmitter battery may be discharged under the following conditions.

- The operation of the keyless access function is unstable
- The operating distance of the remote keyless entry system is unstable
- The transmitter does not operate properly when used within the standard distance

Replace the battery with a new one.

⚠ CAUTION

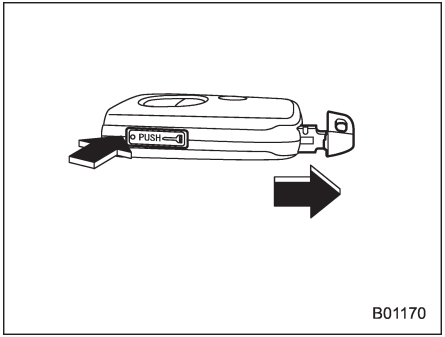
- **Do not let dust, oil or water get on or in the access key/transmitter when replacing battery.**
- **Be careful not to damage the printed circuit board in the access key/transmitter when replacing the battery.**
- **Be careful not to allow children to touch the battery and any removed parts; children could swallow them.**
- **There is a danger of an explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type of the battery.**
- **Do not expose batteries to excessive heat such as bright sunlight, fire or the like.**

NOTE

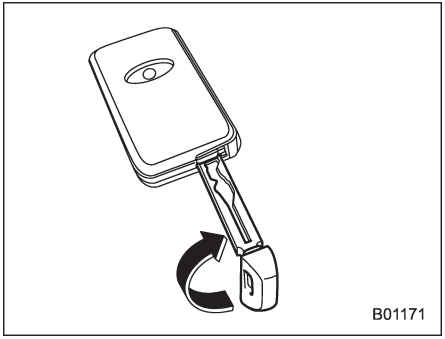
- **Replace only with the same or equivalent type of battery recommended by the manufacturer.**
- **Dispose of used batteries according to local laws.**
- **Mount the battery in the correct orientation to prevent fluid leakage. Be careful not to bend the terminals. It may result in a malfunction.**
- **It is recommended that the battery should be replaced by a SUBARU dealer.**
- **Use a new battery.**
- **After replacing the battery, confirm that the access key/transmitter functions properly.**

■ Replacing access key battery

Battery: Button battery CR1632



1. Pull out the mechanical key.



2. Insert the key into the gap and turn it clockwise to remove the cover.

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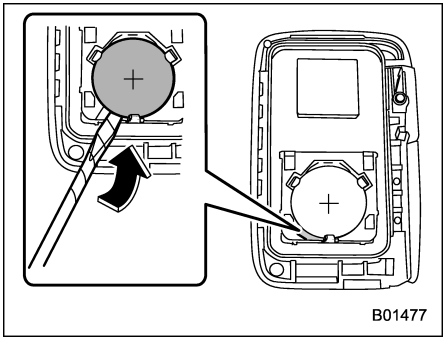
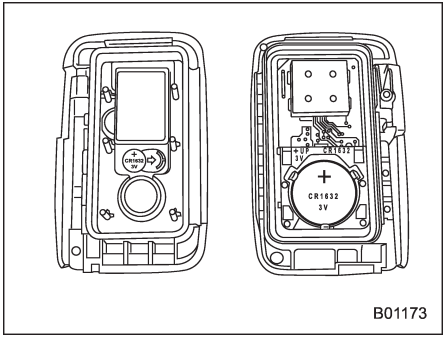
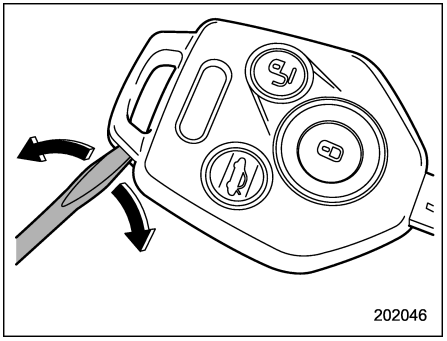


3. Wrap a flat-head screwdriver with insulating tape, and insert it between the battery and the board. Then pry it out from the board.

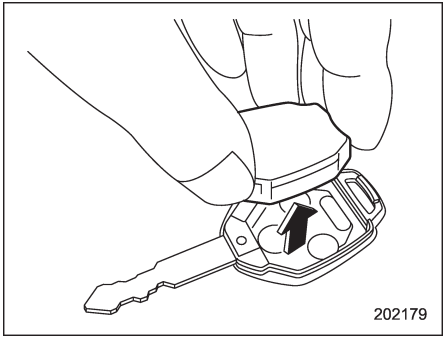


4. Insert a new battery with its positive (+) side facing upward as shown in the illustration. Attach the cover firmly.

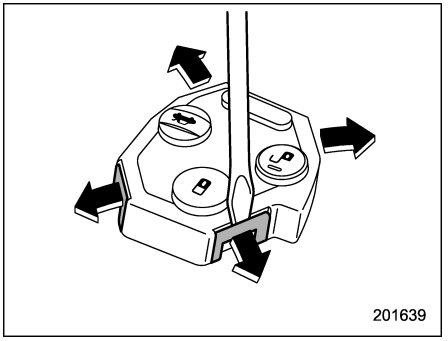
■ Replacing transmitter battery



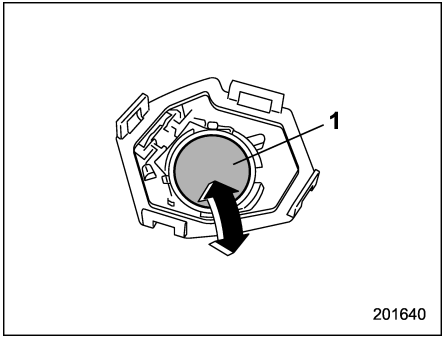
1. Open the key head using a flat-head screwdriver.



2. Remove the transmitter case from the key head.



3. Open the transmitter case by releasing the hooks.



1) Negative (−) side facing up

4. Replace the old battery with a new battery (type **CR1620** or equivalent) making sure to install the new battery with the negative (−) side facing up.
5. Put together the transmitter case by fitting the hooks on the case.
6. Reinstall the transmitter case in the key head.
7. Refit the removed half of the key head.

After the battery is replaced, the transmitter must be synchronized with the remote keyless entry system's control unit. Press either the "🔒" or "🔓" button six times to synchronize the unit.